



CITY OF NOTTINGHAM.

ANNUAL HEALTH REPORT

FOR

1900,

— BY —

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MEDICAL SUPERINTENDENT OF ISOLATION HOSPITAL.

Nottingham:

THOMAS FORMAN AND SONS, PRINTERS, SHERWOOD STREET.

CITY OF NOTTINGHAM.

1900—1901.

HEALTH COMMITTEE.

COUNCILLOR RADFORD, J.P., MAYOR.

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ALDERMAN MUTCH, M.D.

Vice-Chairman :

COUNCILLOR BENTLEY.

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„ WHITE.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

GENTLEMEN,

The Annual Report I now present is the 12th I have had the honour of preparing as Medical Officer of Health for Nottingham, but the 11th only for which I have been solely responsible.

Owing to the fact that the census was to be taken early in the present year (1901), I decided, with your consent, to postpone the preparation of the most important statistical sections of this report until the exact population returns should be available as a basis for the calculation of rates. As I had anticipated, however, the discrepancy between the estimated and the actual population figures is not large enough to be of serious statistical importance, and therefore the statistics I have furnished during the past ten years, based upon such approximately accurate estimates of population, may be retained as reliable records.

The health of the City, gauged alike by the general sickness and mortality and by the prevalence and fatality of the more important infectious diseases, shewed a considerable improvement during 1900 as compared with 1899; although it must be confessed that this is not necessarily saying much for the salubrity of the city, on account of the very poor record of 1899.

The census shews the actual population on April 1, 1901, to have numbered 239,753. The retrospective estimate of population for the middle of 1900 from this last datum becomes 237,770.

The total deaths registered during 1900 were 134 less than in 1899, and those from epidemic diarrhoea and enteric fever were respectively 35% and 34% below those of the preceding year. Of other infective diseases, tuberculosis, influenza, and whooping cough alone caused more than the average mortality. The excessive mortality of the first, however, was certainly in great measure due to the occurrence of the two latter in epidemic form.

Perhaps the most important item of statistical information in this report is the decline in the birth-rate, which now stands at little more than 28 per 1000 living, having fallen nearly 10 per 1000 in 20 years.

The routine work of the Health Department in most of its sections has proceeded in a fairly satisfactory manner during the year, but there are certain matters calling for special comment and criticism upon which I shall here touch very briefly.

The difficulty attending the satisfactory disposal of the night-soil and other offensive refuse of the city in the districts outside its boundaries has now, for the time being at any rate, become extreme, and brought home to everyone the immediate and pressing necessity for the new destructors you have so long wished to put up. These destructors will cost a large sum of money to build, and afford but a poor return for some years to come at least, but it must not be forgotten that the town has to pay toll of other kind for the existing system of storing decomposing refuse in the midst of inhabited districts, which has lately become, so far as Nottingham is concerned, the only apparent alternative to the destruction of such material by fire.

It hardly requires to be mentioned that a small-pox hospital and public abattoirs are things of necessity for this city, but yet in the womb of the future.

The problem of the better housing of the working classes is one which varies greatly with the diversity of local conditions and requirements; but it may be safely laid down as a very general rule, that, given the possibility of extra-mural residence, the cheap country or suburban cottage, with rapid means of transit to and from the work-place, is the simplest, the safest, the cheapest, and the healthiest solution. There are many poor houses in Nottingham ripe for destruction, but these cannot be seriously interfered with until other new dwellings capable of taking their tenants are placed upon the stocks.

One excellent means by which municipalities can help their poor to help themselves is, to employ lady health visitors to visit the people in their homes and advise them upon sanitary matters and general domestic economy.

PHILIP BOOBYER.

TABLE I.

Nottingham. Population, Inhabited Houses, Marriages, Births and Deaths for 1900, and for the 10 years 1890-99.

	Estimated Population.	Inhabited Houses.	† Marriages.	Births.	Deaths.			Deaths in Public Institutions.
					Total at all ages.	Under One Year.	Under Five Years	
1900	237,770*	52,537	2153	6731	4555	1314	1811	770
1899	239,384	53,052	2037	6910	4689	1470	1954	802
1898	236,137	52,051	1912	6796	4058	1209	1689	636
1897	232,935	...	1895	6742	4277	1362	1869	587
1896	229,775	...	1749	6758	3987	1136	1709	594
1895	226,659	...	1658	6717	4195	1269	1640	522
1894	223,584	...	1635	6373	3728	1108	1609	547
1893	220,551	...	1638	6612	4061	1145	1569	610
1892	217,550	...	1672	6315	3961	1058	1613	561
1891	214,606	46,612	1615	6344	4162	1078	1646	540
1890	211,698	...	1549	6205	4031*	985	1484	430
Average of the ten years 1890-99.	225,287·9	...	1736·0	6577·2	4114·9	1182·0	1678·2	582·9

* Retrospective estimate based upon Census Return of April, 1901.

Estimates for years 1891—1899 based upon hypothesis that rate of increase between 1881 and 1891 had continued during succeeding decennium.

Estimate for 1890 retrospective from Census of 1891.

† The returns of Marriages, from June 1899 onwards, are for the entire municipal area—the new Parish of Nottingham: prior to this, they did not include those of Bulwell, Basford, and North Wilford.

Population at Census 1881—186,575; at Census of 1891—213,877; at Census of 1901—239,753.

Average number of persons in each house, at Census 1881—4·8; at Census 1891—4·6; at Census 1901—4·5.

Area of Borough—10,935 acres.

Average number of persons to an acre—21·74 (1900).

TABLE II.

Nottingham. Annual Rates for 1900 and the 10 years 1890-99.

	Rate per 1000 of Population.		Per 1000 Births. Deaths under 1 year.	Per 1000 of Total Deaths.		
	Birth Rate.	Death Rate.		Deaths under 1 year.	Deaths under 5 years.	Deaths in Public Institutions.
1900	28.3	19.2	196	288	398	169
1899	28.8	19.6	213	313	417	168
1898	28.8	17.2	178	298	416	157
1897	28.9	18.4	202	318	437	137
1896	29.4	17.5	168	278	418	145
1895	29.7	18.5	189	302	391	139
1894	28.6	16.7	174	336	432	147
1893	30.2	18.4	172	282	386	150
1892	29.4	18.4	167	267	407	141
1891	29.6	19.5	169	259	395	129
1890	29.2	19.0	158	244	368	106
Average of the ten years 1890-99.	29.26	18.32	179.0	289	407	142

TABLE III.

Nottingham.—Deaths Registered from all causes during the year 1900.

NOTE.—The Deaths of Non-Residents occurring in Public Institutions situated in the District are excluded, and the Deaths of Residents occurring in Public Institutions situated beyond the limits of the District are included.

	AGES.												Totals.			
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards.	55 to 60*	1900	1899	1898	1897
I. SPECIFIC FEBRILE, OR ZYMOTIC DISEASES ..	392	194	45	37	24	29	26	41	36	22	4	17	850	1102	783	846
II. PARASITIC DISEASES ..	..	..	..	..	1	..	..	1	1	..	..	1	3	2	10	2
III. DIETIC DISEASES ..	5	..	..	..	..	8	4	2	2	..	..	1	21	22	28	19
IV. CONSTITUTIONAL DISEASES	65	61	36	82	83	134	110	104	63	19	1	62	758	710	695	702
V. DEVELOPMENTAL DISEASES	200	1	..	1	..	..	..	2	32	113	35	1	384	382	333	337
VI. LOCAL DISEASES ..	416	212	57	61	81	150	229	314	396	205	19	151	2140	2055	1868	1758
VII. DEATHS FROM VIOLENCE ..	30	22	4	4	12	17	15	21	17	11	1	13	154	130	143	140
VIII. DEATHS FROM ILL-DEFINED and Not Specified CAUSES	206	7	..	2	3	5	4	..	8	8	2	..	245	286	198	273
TOTALS ..	1314	497	142	187	204	343	388	485	555	378	62	216	4555	4689	4058	4277
1.—Specific Febrile, or Zymotic Diseases.																
1.—MIASMATIC DISEASES.																
Small-pox { Vaccinated ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Unvaccinated ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
No Statement ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles ..	12	32	1	..	..	..	..	..	..	..	..	..	45	140	104	49
Scarlet Fever ..	1	34	18	1	1	..	..	..	..	..	..	..	55	53	33	34
Typhus ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough ..	33	67	3	..	..	..	..	..	..	..	..	..	103	55	59	117
Diphtheria ..	1	16	8	..	..	..	1	2	..	..	..	..	28	30	23	21
Simple Continued and Ill-defined Fever ..	..	..	1	..	..	..	..	..	..	..	..	..	1	4	1	1
Enteric or Typhoid Fever ..	..	8	9	20	16	12	6	4	..	..	..	1	75	114	54	45
Other Miasmatic Diseases ..	..	2	..	..	..	..	..	..	..	..	..	..	2	3	..	..
Influenza ..	1	2	3	7	3	8	8	23	23	13	3	12	94	38	63	14
2.—DIARRHOEAL DISEASES.																
Simple Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea, Dysentery ..	328	29	1	..	1	3	3	7	8	6	1	1	387	600	385	530
3.—MALARIAL DISEASES.																
Remittent Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
Ague ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4.—ZOOGENOUS DISEASES.																
Cowpox and effects of Vaccination	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases (<i>e.g.</i> Hydrophobia, Glanders, Splenic Fever) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
5.—VENEREAL DISEASES.																
Syphilis ..	9	1	..	..	1	..	1	..	..	..	..	..	12	19	16	12
Gonorrhoea, Stricture of Urethra	1	..	..	..	..	..	4	4	2	3	..	2	14	4	4	3

	AGES.													Totals.			
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards.	55 to 60*	1900	1899	1898	1897	
6.—SEPTIC DISEASES.																	
Erysipelas.. .. .	3	1	..	..	..	1	1	..	2	..	..	..	8	11	10	8
Pyæmia, Septicæmia	3	2	1	2	1	3	2	1	1	..	..	1	16	20	13	1
Puerperal Fever .. .. .	..	..	..	7	1	2	..	..	..	..	..	..	10	9	16	10
Tetanus .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
II.—Parasitic Diseases.																	
Thrush & other Vegetable Para- sitic Diseases .. .. .	..	..	..	..	..	..	..	1	..	..	..	1	1	..	10	..
Worms, Hydatids, &c. .. ..	..	..	..	..	1	..	..	..	1	..	..	..	2	2	..	1
III.—Dietic Diseases.																	
Want of Breast Milk, Starvation	5	..	..	..	..	..	..	..	..	..	..	..	5	1	5	1
Scurvy .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chronic Alcoholism .. ..	..	..	..	..	..	7	4	2	2	..	..	1	15	19	20	16
Delirium Tremens .. .. .	..	..	..	..	..	1	..	..	..	..	..	..	1	2	3	2
IV.—Constitutional Diseases.																	
Rheumatic Fever, &c. .. ..	..	..	2	..	2	1	1	1	..	..	..	1	7	2	14	16
Rheumatism .. .. .	..	..	1	..	..	3	..	2	1	1	..	..	8	19	7	13
Gout .. .. .	..	..	..	..	..	..	1	..	..	..	..	..	1	3	5	..
Rickets	18	13	..	..	..	..	..	..	..	..	..	..	31	33	15	25
Cancer, Malignant Disease ..	2	..	..	2	3	22	43	60	44	13	1	34	190	225	203	191
Tabes Mesenterica	20	5	1	..	..	..	1	..	..	..	..	..	27	26	25	35
Tuberculous Meningitis, Hydrocephalus	15	29	10	3	..	..	..	..	..	..	..	..	57	39	43	46
Phthisis	2	6	10	68	67	93	53	29	9	2	..	19	339	290	312	322	
Other forms of Tuberculosis, Scrofula	8	8	10	7	6	9	6	3	1	..	..	1	58	46	49	34
Purpura, Hæmorrhagic Diathesis	..	..	..	1	..	..	1	..	..	..	..	..	2	..	2	3
Anæmia, Chlorosis, Leucocythæmia .. .. .	..	..	..	1	2	1	1	2	3	2	..	..	12	6	6	4
Glycosuria, Diabetes Mellitus ..	..	..	2	..	3	4	3	6	3	1	..	6	22	19	14	13
Other Constitutional Diseases ..	..	..	..	..	..	1	..	1	2	..	..	1	4	2	..	..
V.—Developmental Diseases.																	
Premature Birth	149	..	..	..	..	..	..	..	..	..	..	..	149	150	152	145
Atelectasis	23	..	..	..	..	..	..	..	..	..	..	..	23	16	16	10
Congenital Malformations ..	28	1	..	1	..	..	..	..	..	..	..	..	30	19	31	18
Old Age .. .. .	..	..	..	..	..	..	..	2	32	113	35	1	182	197	134	164
VI.—Local Diseases.																	
I.—DISEASES OF NERVOUS SYSTEM																	
Inflammation of Brain or Mem- branes	12	26	11	2	1	3	1	4	3	..	2	2	65	53	60	54	
Apoplexy, Softening of Brain, Hemiplegia, Brain Paralysis	3	6	3	3	4	13	31	46	79	42	3	21	233	228	219	210	
Insanity, General Paralysis of the Insane .. .. .	..	..	1	2	3	11	13	10	6	1	1	8	48	36	27	31
Epilepsy .. .. .	..	..	2	1	1	1	..	..	4	2	..	..	11	13	18	25
Convulsions	93	11	1	..	1	..	..	..	..	..	..	..	106	104	113	123
Laryngismus Stridulus (Spasm of Glottis)	3	1	..	..	..	..	..	..	..	..	..	..	4	..	1	5
Disease of Spinal Cord, Para- plegia, Paralysis Agitans ..	2	1	..	..	..	3	2	1	4	..	1	..	14	17	12	26
Other Diseases of Nervous System	1	..	1	1	..	4	3	..	1	..	..	..	11	14	6	5

	AGES.													Totals.			
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards.	55 to 60*	1900	1899	1898	1897	
2.—ORGANS OF SPECIAL SENSE.																	
(<i>e.g.</i> , of Ear, Eye, Nose)	2	..	2	1	..	..	..	..	..	..	..	..	5	10	12	7
3.—CIRCULATORY SYSTEM.																	
Pericarditis .. ..	..	..	..	1	..	1	..	..	..	..	..	..	2	1	..	1
Acute Endocarditis .. ..	..	..	..	..	..	..	1	1	..	..	..	..	2	..	2	3
Valvular Diseases of Heart ..	1	..	5	5	5	8	11	17	19	11	..	11	82	62	105	107	
Other Diseases of Heart ..	6	..	4	6	8	22	43	58	73	40	3	26	263	260	205	260	
Aneurism	1	..	..	..	..	..	..	1	2	..	..	1	4	88	10	10
Embolism, Thrombosis ..	..	..	..	..	..	..	..	..	..	..	1	..	1	6	8	6
Other Diseases of Blood Vessels	..	..	..	..	..	1	1	3	6	1	..	..	12	16	8	3
4.—RESPIRATORY SYSTEM.																	
Laryngitis	4	1	1	1	..	..	1	1	..	..	..	..	9	9	16	10
Croup	1	2	2	..	..	..	..	..	..	..	..	..	5	4	7	5
Emphysema, Asthma .. ..	..	..	..	..	..	1	1	1	2	..	..	..	5	10	9	3
Bronchitis	121	62	3	2	1	10	40	72	118	72	3	35	504	445	351	369	
Pneumonia	97	84	9	9	11	26	21	37	29	18	2	18	343	311	328	293	
Pleurisy	2	..	..	1	1	1	..	2	2	..	..	1	9	11	8	10
Other Diseases of Respiratory System .. ..	..	..	..	1	..	1	1	1	..	..	..	..	4	14	4	5
5.—DIGESTIVE SYSTEM.																	
Dentition	16	5	..	..	..	..	..	..	..	..	..	..	21	15	13	14
Sore Throat, Quinsy	1	..	..	..	1	1	..	..	..	..	..	..	3	..	3	4
Diseases of Stomach	26	2	..	2	..	3	5	5	3	2	..	3	48	24	27	41	
Enteritis	2	2	..	..	2	4	..	..	..	1	..	..	11	1	18	17
Obstructive Diseases of Intestine	2	1	1	4	1	2	3	11	4	3	..	6	32	41	26	44	
Peritonitis	2	1	6	7	4	2	3	2	2	1	..	2	30	15	19	17	
Ascites .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Cirrhosis of Liver .. ..	..	..	..	..	4	2	10	8	3	..	..	2	27	30	23	33
Jaundice and other Diseases of Liver	4	1	..	1	4	2	5	9	1	2	..	2	29	16	17	19	
Other Diseases of Digestive System	1	2	..	..	..	..	1	..	..	1	..	..	5	10	4	5
Appendicitis .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
6.—LYMPHATIC SYSTEM.																	
(<i>e.g.</i> , of Lymphatics and of Spleen)	1	1	1	1	..	..	1	..	..	..	..	..	5	4	7	4
7.—GLAND-LIKE ORGANS OF UNCERTAIN USE.																	
(<i>e.g.</i> , Bronchocele, Addison's Disease) .. ..	..	..	1	..	3	1	1	..	1	..	..	..	7	3	5	9
8.—URINARY SYSTEM.																	
Nephritis	1	2	..	2	8	3	10	10	7	..	..	6	42	54	48	39
Bright's Disease, Albuminuria ..	..	2	1	2	5	6	13	7	14	1	1	4	52	41	48	38
Disease of Bladder or of Prostate	..	..	..	..	..	..	..	1	5	4	1	1	11	19	9	18
Other Diseases of the Urinary System .. ..	..	..	1	..	..	..	1	2	1	2	1	1	8	4	1	8

	AGES.													Totals.			
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards	55 to 60*	1900	1899	1898	1897	
9.—REPRODUCTIVE SYSTEM.																	
A. <i>Organs of Generation.</i>																	
Male Organs .. ..	..	..	..	..	..	..	..	1	2	..	..	..	3	1	4	2
Female Organs	1	..	..	1	2	6	3	1	4	..	..	1	18	25	17	21
B. <i>Of Parturition.</i>																	
Abortion, Miscarriage .. ..	..	..	..	..	1	3	..	..	..	..	..	..	4	3	..	4
Puerperal Convulsions .. ..	..	..	..	2	..	1	..	..	..	..	..	..	3	1	5	3
Placenta prævia, Flooding .. ..	..	..	..	..	..	2	..	..	..	..	..	..	2	3	10	5
Other Accidents of Child Birth..	2	..	..	2	8	5	1	..	..	..	..	..	18	20	16	13
10.—BONES AND JOINTS.																	
Caries, Necrosis	1	..	..	1	1	..	..	1	..	..	..	..	4	4	9	13
Arthritis, Ostitis, Periostitis	1	..	1	..	..	..	..	..	..	..	..	..	2	6	1	4
Other Diseases of Bones & Joints ..	..	..	..	..	1	1	..	..	1	..	..	..	3	..	2	..
Osteo-malacia .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
11.—INTEGUMENTARY SYSTEM.																	
Carbuncle, Phlegmon .. ..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	1	3
Other Diseases of Integumentary System	6	..	..	..	..	..	2	1	..	..	..	..	9	2	5	6
VII.—Deaths from Violence.																	
1.—ACCIDENT OR NEGLIGENCE.																	
Fractures and Contusions ..	1	3	3	1	3	6	4	8	10	9	1	5	49	49	63	39	
Gunshot Wounds.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cut, Stab .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Burn, Scald	1	15	1	1	2	..	2	2	..	1	..	..	25	23	17	13
Poison .. ..	..	1	..	..	1	2	..	3	..	..	..	3	7	8	5	5
Drowning .. ..	..	..	..	1	1	2	1	1	3	..	..	..	9	11	7	14
Suffocation	28	3	..	..	..	1	..	..	1	..	..	..	33	17	23	37
Otherwise.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	5
2 —HOMICIDE.																	
Manslaughter .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Murder .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
3.—SUICIDE.																	
Gunshot Wounds.. ..	..	..	..	1	..	..	..	..	..	..	..	..	1	2	..	1
Cut, Stab .. ..	..	..	..	..	2	1	2	1	..	..	..	1	6	1	3	6
Poison .. ..	..	..	..	..	2	2	..	1	..	..	..	1	5	6	12	9
Drowning .. ..	..	..	..	..	1	1	3	2	1	..	..	..	8	4	..	1
Hanging .. ..	..	..	..	..	..	2	3	3	2	1	..	3	11	6	6	9
Otherwise .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
4.—EXECUTION.																	
Hanging .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
VIII.—Ill-Defined Causes.																	
Dropsy .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
Debility, Atrophy, Inanition ..	190	5	..	..	1	..	1	..	1	1	1	..	200	242	163	235
Mortification	1	..	..	..	..	..	..	..	1	2	..	..	4	..	..	1
Tumour .. ..	..	1	..	..	1	1	1	..	..	..	..	..	4	..	1	..
Abscess	1	..	..	1	..	..	..	..	..	..	..	..	2	..	..	..
Hæmorrhage .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	1
Sudden Death (cause not ascertained).. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
Causes not specified (Ill-defined) ..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	1
Uncertified	14	1	..	1	1	3	2	..	6	5	1	..	34	40	31	35	

SUMMARY OF TABLE III.

						No. of Deaths.			
						1900	1899	1898	1897
I.—Specific Febrile, or Zymotic Diseases.									
1. Miasmatic Diseases	..	..	..	..	..	403	437	337	282
2. Diarrhoeal	"	..	..	..	..	387	600	385	530
3. Malarial..	"	..	..	..	..	..	..	2	..
4. Zoogenous	"	..	..	..	..	..	1	..	..
5. Venereal	"	..	..	..	..	26	23	20	15
6. Septic	"	..	..	..	..	34	41	39	19
II —Parasitic Diseases						3	2	10	2
III.—Dietic Diseases						21	22	28	19
IV.—Constitutional Diseases..						758	710	695	702
V.—Developmental Diseases						384	382	333	337
VI.—Local Diseases—									
1. Diseases of Nervous System	..	..	..	..	..	492	465	456	479
2. Diseases of Organs of Special Sense..	..	..	..	..	..	5	10	12	7
3. Diseases of Circulatory System	..	..	..	..	..	366	433	338	390
4. Diseases of Respiratory System	..	..	..	..	..	879	804	723	695
5. Diseases of Digestive System	..	..	..	..	..	206	152	151	196
6. Diseases of Lymphatic System	..	..	..	..	..	5	4	7	4
7. Diseases of Gland-like Organs of uncertain use	..	..	..	..	..	7	3	5	9
8. Diseases of Urinary System	..	..	..	..	..	113	118	106	103
9. Diseases of Reproductive System—									
(a). Diseases of Organs of Generation	..	..	..	..	..	21	26	21	23
(b). Diseases of Parturition..	..	..	..	..	..	27	27	31	25
10. Diseases of Bones and Joints	..	..	..	..	..	9	10	12	18
11. Diseases of Integumentary System	..	..	..	..	..	10	3	6	9
VII.—Violence—									
1. Accident or Negligence	..	..	..	..	..	123	108	121	113
2. Homicide	..	..	..	..	..	..	2	..	..
3. Suicide	..	..	..	..	..	31	19	22	27
4. Execution	..	..	..	..	..	..	1	..	..
VIII.—Ill-Defined and Not Specified Causes.						245	286	198	273
TOTAL						4555	4689	4058	4277

TABLE IV.

Nottingham, 1900. Deaths and Death-Rates from certain groups of Diseases.

A. All Ages.	Deaths.	Deaths per 1000 of the <i>population</i> .	Deaths per 1000 <i>total Deaths</i> .
1. Principal Zymotic Diseases	696	2·93	153
2. Pulmonary Diseases	879	3·70	193
3. Tuberculous Diseases	481	2·02	106
B. Infants under 1 year of Age.	Deaths.	Deaths per 1000 <i>Births</i> .	Deaths per 1000 <i>Deaths under 1 year</i>
4. Wasting Diseases ...	244	36·3	186
5. Convulsive Diseases	121	18·0	92

NOTES.

1. Includes Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping-Cough, Typhus, Enteric, and Simple Continued Fevers, and Diarrhœa.
2. Includes all Respiratory Diseases except Phthisis (Consumption).
3. Includes Phthisis, Scrofula, Tuberculosis, and Tabes Mesenterica.
4. Includes Marasmus, Atrophy, Wasting, Debility, Inanition, Premature Birth, and Improper Feeding.
5. Includes Infantile Meningitis, Convulsions, and Dentition.

TABLE V.

Nottingham. Deaths from the Principal Zymotic Diseases in the ten years 1890-99, and in the Year 1900.

DISEASE.	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	Ten Years, 1890-99.		1900.	
											Annual Average.	Proportion of Deaths to 1000 Deaths.	Deaths.	Proportion of Deaths to 1000 Deaths.
Small-pox .. ..	..	..	..	4	4	..	..	..	..	..	0.8	0.19	..	..
Measles	52	110	118	25	134	1	203	49	104	140	93.6	22.7	45	9.88
Scarlet Fever	33	28	43	83	49	50	27	34	33	53	43.3	10.52	55	12.07
Diphtheria	16	21	30	15	22	11	12	21	23	30	20.1	4.88	28	6.15
Whooping-Cough	47	121	117	59	119	33	91	117	59	55	81.8	19.88	103	22.61
FEBERS { Typhus Enteric Simple Continued .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	58	70	36	68	61	55	75	45	54	114	63.6	15.45	75	16.46
	4	..	..	1	..	..	..	1	1	4	0.7	0.17	1	0.22
Diarrhoea	185	180	158	361	152	444	177	530	385	600	317.2	77.04	387	84.97
TOTAL	395	530	503	616	541	594	585	797	659	996	621.6	151.05	694	152.5
TOTAL, LONDON	12,279	9,675	11,983	13,223	11,549	11,544	14,100	11,525	12,565	11,228	11,967.1	138.8	10,136	117.9
TOTAL, ENGLAND AND WALES	59,698	53,221	56,032	73,499	52,771	64,901	66,936	67,051	69,714	69,820	63,364.3	115.0	64,059	109.0

Birth-Rate, Death-Rate, Infantile Death-Rate, and Death-Rate from Zymotic Diseases and Phthisis.

(REGISTRAR-GENERAL).

I. NOTTINGHAM.

In five yearly periods, 1856—1890, and in single subsequent years.

	Birth-Rate.	Death-Rate.	Infantile Death-Rate.	DEATH-RATE FROM								
				7 Prin. Zymotic Diseases.	Small-Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	"Fever."	Diarrhoea.	Phthisis, and other tuberculous Diseases.
1856—1860	36.8	27.2	209	5.98	0.21	0.80	1.08	0.13	0.76	1.02	2.00	3.22
1861—1865	34.8	24.9	192	3.83	0.09	0.43	0.98	0.12	0.51	0.78	1.09	3.19
1866—1870	31.3	23.8	200	4.34	0.07	0.44	0.73	0.09	0.51	0.92	1.57	2.78
1871—1875	34.1	24.9	192	4.30	0.79	0.31	0.53	0.02	0.26	0.84	1.53	2.42
1876—1880	34.6	21.7	175	3.00	0.00	0.35	0.62	0.03	0.43	0.34	1.06	1.85
1881—1885	36.6	20.9	174	3.22	0.06	0.41	0.77	0.12	0.46	0.31	1.09	1.99
1886—1890	30.4	17.9	168	2.39	0.01	0.42	0.11	0.06	0.45	0.31	1.04	1.52
1891	29.8	19.5	169	2.49	0.00	0.51	0.13	0.09	0.56	0.32	0.84	1.69
1892	29.4	18.4	167	2.33	0.00	0.55	0.19	0.13	0.54	0.16	0.73	1.42
1893	30.2	18.4	172	2.62	0.02	0.11	0.37	0.07	0.27	0.31	1.47	1.81
1894	28.6	16.7	174	2.42	0.01	0.60	0.23	0.08	0.53	0.28	0.60	1.80
1895	29.7	18.5	189	2.64	..	0.00	0.23	0.04	0.14	0.24	1.97	2.10
1896	29.4	17.5	168	2.47	..	0.88	0.11	0.06	0.39	0.34	0.69	1.89
1897	28.9	18.4	202	2.81	..	0.21	0.15	0.09	0.49	0.21	1.66	1.88
1898	28.8	17.2	178	2.37	..	0.44	0.14	0.10	0.25	0.24	1.20	1.82
1899	28.9	20.0	210	3.33	..	0.58	0.23	0.13	0.23	0.48	1.68	1.67
1900	28.3	19.2	196	2.35	..	0.19	0.23	0.12	0.43	0.32	1.08	2.02

II. ENGLAND AND WALES.

In five yearly periods, 1858 to 1890, and in single subsequent years.

1858—1860	34.3	22.2	153	4.03	0.22	0.48	0.89	0.37	0.49	0.79	0.78	2.57
1861—1865	35.1	22.6	151	4.22	0.22	0.46	0.98	0.25	0.52	0.92	0.87	2.53
1866—1870	35.3	22.4	159	4.08	0.10	0.43	0.96	0.13	0.55	0.85	1.06	2.45
1871—1875	35.5	22.0	153	3.76	0.41	0.37	0.76	0.12	0.50	0.60	1.00	2.22
1876—1880	35.4	20.8	144	2.94	0.01	0.39	0.68	0.12	0.53	0.38	0.83	2.04
1881—1885	33.4	19.3	139	2.32	0.01	0.41	0.43	0.16	0.46	0.27	0.65	1.82
1886—1890	31.4	18.9	145	2.25	0.01	0.46	0.24	0.17	0.44	0.20	0.66	1.63
1891	31.4	20.2	149	2.70	0.00	0.43	0.17	0.17	0.46	0.16	0.46	1.60
1892	30.5	18.9	148	2.78	0.01	0.46	0.19	0.22	0.45	0.14	0.50	1.47
1893	30.8	19.2	159	3.16	0.05	0.37	0.23	0.31	0.34	0.23	0.95	1.47
1894	29.6	16.6	137	2.25	0.02	0.39	0.16	0.29	0.41	0.16	0.36	1.38
1895	30.3	18.7	161	2.14	0.00	0.38	0.15	0.26	0.32	0.18	0.87	1.40
1896	29.7	17.1	148	2.18	0.02	0.56	0.18	0.29	0.41	0.17	0.55	1.31
1897	29.7	17.4	156	2.15	0.00	0.40	0.14	0.24	0.35	0.16	0.86	1.34
1898	29.4	17.6	161	2.22	0.01	0.41	0.11	0.24	0.31	0.18	0.96	1.32
1899	29.3	18.3	163	2.21	0.01	0.31	0.12	0.29	0.30	0.20	0.93	1.3
1900	28.9	18.3	154	2.00	0.00	0.39	0.12	0.29	0.34	0.17	0.69	*

* Phthisis alone.

Principal Vital Statistics of the 33 Greater English Towns for 1900 (taken from the Registrar-General's Quarterly Reports and Annual Summary).

Populations as at Census of 1901, and also estimated to middle of 1900 from Census of 1891.

	Census Population, 1901.	Populations estimated to middle of 1900.	Birth- Rate.	Recorded Death- Rate.	Cor- rected Death- Rate.	DEATH-RATES AT AGE PERIODS.			Death Rate from seven chief zymotic diseases.	Percent- age of uncerti- fied Deaths.
						Deaths under one year per 1000 Births.	Deaths 1 to 60 years per 1000 living at those ages.	Deaths over 60 years per 1000 living at those ages.		
England & Wales	32,526,075	32,091,907	28·9	18·31	18·31	154	9·3	74·4	2·00	1·9
33 Large Towns	11,433,310	11,610,296	29·4	19·54	21·11	172	10·6	79·8	2·50	1·3
London ..	4,536,034	4,589,129	28·6	18·79	20·02	160	10·2	77·2	2·22	0·6
Liverpool ..	685,276	634,780	36·0	25·66	28·17	186	14·8	96·9	3·18	4·1
Manchester ..	543,930	548,768	32·3	24·13	27·34	189	14·3	96·7	3·05	1·0
Birmingham ..	522,182	519,610	32·7	21·53	23·79	199	11·1	86·7	2·72	2·3
Leeds ..	428,963	431,287	30·4	20·00	22·16	183	10·9	82·5	2·92	0·5
Sheffield ..	380,717	365,922	34·1	22·59	25·12	200	12·4	84·6	4·33	3·0
Bristol ..	328,836	324,973	27·8	16·66	17·29	133	9·0	68·8	1·88	0·6
West Ham ..	267,308	314,472	28·6	15·93	17·19	189	8·2	66·3	3·10	1·6
Bradford ..	279,809	291,535	23·0	16·41	18·69	141	8·9	85·1	1·36	0·9
Nottingham ..	239,753	242,676	27·7	19·10	20·54	196	9·3	78·3	2·35	0·8
Hull ..	237,786	238,736	32·9	19·75	20·75	183	10·0	76·3	3·10	2·1
Salford ..	221,015	220,816	33·1	25·10	28·22	207	14·4	104·3	3·98	0·9
Newcastle ..	214,998	234,369	30·4	19·51	21·25	170	11·2	79·0	1·38	1·0
Portsmouth ..	189,160	194,955	25·7	17·28	17·67	155	9·3	67·5	2·38	1·8
Leicester ..	211,574	219,169	28·2	17·43	18·92	175	9·3	68·7	3·54	1·9
Oldham ..	137,238	153,297	24·2	19·55	22·39	172	12·0	84·1	2·44	0·1
Sunderland ..	146,828	147,398	35·8	21·41	22·47	169	11·5	84·7	2·52	1·8
Cardiff ..	164,315	194,247	26·8	13·77	15·37	141	7·8	61·4	2·08	0·6
Blackburn ..	127,527	137,107	25·1	20·48	23·00	220	11·1	91·7	3·52	2·6
Brighton ..	123,478	124,148	23·6	17·84	18·04	166	9·0	68·7	2·24	0·5
Bolton ..	168,205	164,240	29·0	19·45	22·04	171	10·7	91·7	2·42	0·5
Preston ..	112,910	118,902	29·0	24·03	26·42	236	12·9	93·9	4·37	3·1
Croydon ..	133,885	131,186	24·9	14·60	15·22	132	7·0	69·1	1·44	0·0
Norwich ..	111,728	114,855	28·4	17·57	16·83	178	7·1	69·2	2·08	1·0
Birkenhead ..	110,906	117,170	29·0	16·82	18·49	160	8·5	79·5	1·39	0·9
Huddersfield ..	95,008	104,484	22·8	16·78	19·51	132	9·2	86·5	1·52	2·9
Derby ..	105,785	107,991	26·9	17·46	19·26	174	8·7	84·7	2·30	0·0
Swansea ..	94,505	105,472	26·7	17·07	18·65	175	9·4	70·3	2·17	1·1
Burnley ..	97,044	116,730	25·3	16·30	18·72	205	8·6	69·6	2·53	1·3
Gateshead ..	109,891	109,403	36·3	19·02	20·43	169	9·8	77·2	1·75	3·0
Plymouth ..	107,609	102,161	27·9	20·80	20·22	175	10·7	70·2	2·35	0·3
Halifax ..	104,937	100,710	23·0	18·12	20·17	132	9·9	90·1	1·32	4·0
Wolverhampton	94,170	89,598	33·5	22·51	23·55	206	11·1	82·2	3·65	0·9

GENERAL VITAL STATISTICS.

Population.—The much-looked-for census figures being now available, I have at length an opportunity of comparing our recent estimates of population with actual numerical data. It is gratifying to find that I have been right in saying that these estimates were very approximately accurate. The estimated population at the middle of 1900 was 242,676, and the census returns for April 1st of the current year shew an actual population of 239,753 at that date. With an estimate brought up to date the deficit amounts to 2·6 ‰. The discrepancy is not sufficient to affect the sickness and death rates to a material degree. For example, the difference between the death-rate under the estimate based upon the 1891 census (18·8), and that under the new estimate formed retrospectively from the census of 1901 (19·2), is only 0·4 per 1,000. The proportional discrepancy would necessarily become less in each successive year backward to the previous census. Still, it is impossible with only a decennial census to depend upon to be at all sure of forming an approximate estimate of population in the later years of the decennium, and a quinquennial census, therefore, is much to be desired. The actual increase of population in Nottingham between the census of 1891 and that of 1901 was 25,876, which is equal to a percentage of 12·1 : the percentage of increase between 1881 and 1891 was 14·6.

I append a summary of the recent census return for Nottingham, and also a table of the census populations of the 33 great towns, with the increase or decrease (in case of Huddersfield only), actual and proportional, of each during the preceding decennium. All the great towns, except Huddersfield, have increased by some thousands, and from some 4 per cent. (Swansea and Sunderland) to 30 per cent. (Croydon) since 1891, but taking them all round the rate of increase is less than in the previous decennium. The decline in the rate of increase is to be explained by a falling birth-rate, and other recognised factors limiting local rates of expansion.

DISTRICT OF NOTTINGHAM.

8

CENSUS, 1901. SUMMARY.

Sub-Districts.	Number of Enumeration Districts in each Sub-District.	Number of Separate Families.	HOUSES.				Tenements of less than 5 rooms.	POPULATION.		
			Inhabited.	Not Inhabited.		Building.		Males.	Females.	Total.
				In Occupation.	Not in Occupation.					
Bulwell ...	40	8,668	8,645	146	218	89	3,147	19,992	21,896	41,888
North East	69	14,920	14,316	404	280	39	4,882	30,717	35,557	66,274
South East	34	7,911	7,723	264	188	69	3,392	16,293	17,399	33,692
North West	49	13,288	13,059	326	222	69	3,529	26,562	31,826	58,388
South West	39	8,629	8,494	668	222	48	3,018	18,100	21,410	39,510
TOTAL ...	231	53,416	52,537	1,808	1,130	314	17,968	111,664	128,088	239,752

THE THIRTY-THREE GREAT TOWNS.
CENSUS, 1901.

	Census Population, 1901.	Increase or Decrease, 1891-1901.	Percentage of Increase or De- crease, 1891-1901.
London	4,536,034	307,717	6·8
Liverpool	685,276	56,728	9·0
Manchester	543,930	38,562	7·6
Birmingham	522,182	44,069	9·2
Leeds	428,953	61,448	16·7
Sheffield	380,717	56,474	17·4
Bristol	328,836	39,566	13·7
Bradford.. .. .	279,809	14,081	5·3
West Ham	267,308	62,405	23·4
Nottingham	239,753	25,876	12·1
Hull	237,786	37,314	18·6
Salford	221,015	22,876	11·6
Newcastle-upon-Tyne	214,998	28,698	15·4
Leicester.. .. .	211,574	36,950	21·1
Portsmouth	189,160	29,882	18·8
Bolton	168,205	21,718	15·0
Cardiff	164,315	35,400	27·5
Sunderland	146,828	15,142	11·5
Oldham	137,238	5,775	4·4
Croydon	133,885	31,190	30·3
Blackburn	127,527	7,463	6·2
Brighton.. .. .	123,478	7,605	6·6
Preston	112,910	5,337	4·9
Norwich	111,728	10,758	10·7
Birkenhead	110,906	11,049	11·1
Gateshead	109,891	24,199	28·2
Plymouth	107,509	18,583	20·9
Derby	105,785	11,639	12·4
Halifax	104,937	7,223	6·9
Burnley	97,044	10,028	11·5
Huddersfield	95,008	-412	-0·4
Swansea	94,505	4,156	4·2
Wolverhampton.. .. .	94,179	11,517	13·9

It is satisfactory to know that other—secondary and minor—centres of population have also shared in the general increase. We are told, indeed, that when the census return for the whole country is published, it will probably be found that there has been an advance of the population in practically all but the purely rural districts. In making comparison of the populations of towns, and especially of the great towns, and of the increase in these populations, it should be remembered that many towns have undergone sudden expansion through the inclusion of neighbouring districts within their administrative areas, and also that in many cases, on the other hand, much of the growth of population which is in reality due to the industrial activity of a central town district

is credited to its independent suburbs, into which persons finding occupation within the town's limits have overflowed for residential purposes. In the case of Nottingham this is specially exemplified at West Bridgford and Beeston.

According to the recent census, Nottingham now occupies the tenth place from the highest among the great towns in order of magnitude of population, as compared with the ninth in 1899. West Ham still stands next above it with 267,308, and Hull next (and very near) below with 237,786.

The census shews the population to be made up of 111,664 males and 128,088 females—a ratio of $\frac{8.7}{10.0}$. The same sexual ratio in the estimated population for the middle of 1900 gives 110,750 males and 127,020 females at that period. The ratio of the sexes in Nottingham at the previous census was $\frac{8.4}{10.0}$. The lessening of the preponderance of females is probably due to diminished local demand for female labour. The ratio of the sexes in England and Wales at the present time is approximately $\frac{9.4}{10.0}$.

Marriages.—I am now for the first time able to furnish a complete annual return of marriages taking place within the city. The unification of the municipal area took place in the spring of 1899, and from the mid-year onwards all marriages within this area have been registered as belonging to Nottingham.

NOTTINGHAM.

Marriages during each Quarter of 1900

Where Performed.	Qr. I.	Qr. II.	Qr. III.	Qr. IV.	TOTAL.
In Churches	200	406	340	388	1,334
In Chapels, &c. ..	13	23	26	15	77
Before Registrars ..	150	185	185	222	742
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	363	614	551	625	2,153

The accompanying table gives the numbers of marriages which took place in the city in each quarter of the year, in churches of the establishment, in chapels and other like places, and before registrars, respectively. There is a slight falling-off in the marriage-rate for 1900 as compared with the three immediately preceding years.

Births.—The number of births registered in Nottingham during 1900 was 6,731, as compared with 6,910 in 1899, and an annual average of 6,577 for the ten years 1890—99. The birth-rate per 1,000 living was 28·3, the lowest reliable rate on record, and the actual number of births was lower than that of any year since 1894.

Of the births, 3,464 were male and 3,267 female; 203 of the male births and 195 of the female were illegitimate. The illegitimate amounted to 5·91 per cent. of all. This latter accords very closely with the average proportion of many recent years. The latest decennial record for England and Wales gives 4·27 per cent. of illegitimate births as the average annual proportion for the country as a whole. There is in this instance again but slight variation from the average in consecutive years.

Deaths.—The deaths during 1900 of persons normally resident in Nottingham, according to the returns furnished me by the District Registrars, amounted to 4555. This total is equal to a rate of 19·2 per 1000 living. This rate is lower than that for 1899, but higher than any other annual rate since 1891. The Registrar-General gives the recorded general death-rate of the City for 1900 as 19·10, but this rate is based upon an estimated population without correction from the recent census.

The recorded death-rate of the Registrar-General for any particular town, multiplied by the correcting factor supplied by him, gives the rate which would have obtained were the sex and age distribution of the town's population identical with that of England and Wales.

The recorded death-rate of Nottingham during 1900 treated in this manner rises from 19·10 to 20·54.

The actual numbers of deaths of either sex registered in the town during the year were: males, 2771; females, 2291.

With the aid of the recent census return I am now able to furnish the exact death-rates among males and females respectively during the past year. The male rate per 1000 living was 21·41, the female 18·08. The corresponding rates for 1899 were 21·22 and 18·99 respectively.

The last available return of male and female death-rates in England and Wales as a whole is that for 1891-95. This gives the general male rate as 19·8 and the female as 17·7. The difference, therefore, between the local male and female rates is greater than that in the country generally, and each of the local rates also is higher than the corresponding rate for the whole country.

In Table A of the Registrar-General's Annual Summary for 1900, Nottingham stands 19th from the lowest among the 33 great towns of England and Wales arranged in order of magnitude of corrected death-rates, and 18th from the lowest in order of recorded rates. It has thus risen two places by its corrected rate and four places by its recorded rate as compared with the preceding year.

Croydon, Cardiff, and Norwich have again the lowest corrected death-rates; these rates are, respectively, 15·22, 15·37, and 16·83. Manchester, Liverpool, and Salford also again figure at the other end of the list, with corrected rates of 27·34, 28·17, and 28·22.

With the annual mortality of England and Wales taken as a standard 1000, the death-rate of Croydon referred to such standard would be represented by 831, and that of Salford by 1541, while the rate in Nottingham would be 1122, and the mean rate in the 33 great towns 1153.

The deaths during 1900 in Nottingham among children under one year of age were equal to 196 per 1000 born during the year. This rate of mortality among infants, though somewhat less than that for 1899, is still extremely high. The worst features of the waste of life here indicated are, firstly, that it is in great measure preventible—it is the hand-fed children of the poor who constitute the bulk of the victims—and, secondly, that it by no means implies the simple elimination of the unfit, for great numbers of well-conditioned infants fall a prey to epidemic diarrhœa and other incidental maladies to which the hand-fed are specially prone.

The average infant death-rate for the ten years 1890-99 was 179 in Nottingham, 160 in London, and 172 in the 33 great towns taken together. The rate for 1900, moreover, in London and in the great towns respectively, was identical with that for the preceding ten years. The infant death-rate for 1900 in England and Wales was 154.

The annual death-rate per 1000 living among persons aged between 1 and 60 years (for 1900) was 9·3 in Nottingham, 10·2 in London, 10·6 in the 33 towns, and 9·3 in England and Wales.

The death-rate per 1000 among persons aged 60 years and upwards was 78·3 in Nottingham, 77·2 in London, 79·8 in the 33 towns, and 74·4 in England and Wales.

***Registration Sub-Districts.**—The population figures and vital and other statistics of the registration sub-districts of the city have been robbed of much of the interest which would otherwise attach to them by the frequent and radical changes which have been made in their boundaries in recent years. Still, if we bear these alterations in mind, and recollect that the increase or decrease of their populations, as the case may be, has been largely due to such alterations, as distinguished from natural growth or decline, we may yet compare their statistics and draw from them many useful conclusions regarding the relative character and health of the geographical divisions of the city and their inhabitants.

I have already in previous annual reports devoted much space to descriptions of the changes made by the Registrar-General from time to time in the registration sub-districts of Nottingham; I shall here, therefore, content myself with the above general reference to the matter.

The birth-rates in Bulwell and S.E. are, as heretofore, comparatively well maintained, at 32·1 and 30·6 per 1,000 living respectively; those of S.W. and N.E. come next at 27·2 and 27·0,

* The boundaries of the Registration Sub-Districts are shewn upon the map which accompanies the Section dealing with Enteric Fever. (facing p. 40.)

and that of N.W. is last at 25·5. The percentages of all births which were illegitimate in the several sub-districts were as follows : Bulwell, 8·10 ; N.W., 4·77 ; N.E., 5·76 ; S.W., 4·27 ; S.E., 6·69.

Births in Registration Sub-Districts. 1900.

District.	Legitimate.		Illegitimate.		Total of each Sex.		Total of both Sexes.
	M.	F.	M.	F.	M.	F.	
Bulwell	644	593	57	52	701	645	1346
N.W.	737	681	36	35	773	716	1489
N.E.	880	805	57	46	937	851	1788
S.W.	538	493	24	22	562	515	1077
S.E.	462	500	29	40	491	540	1031
TOTALS ..	3261	3132	203	195	3464	3267	6731

The lowest general death-rate in the districts was 16·1 in N.W., the next 17·8 in S.E., then 18·9 in N.E., 21·8 in S.W., and 23·1 in Bulwell.

Of the infant death-rates (per 1,000 births during the year) those of N.E., S.W. and S.E. were almost identical at 213, 214 and 215 respectively. The rate in N.W. was 179, and in Bulwell 163.

The death-rates per 1,000 living from the seven principal zymotic diseases were as follows : Bulwell, 2·39 ; N.W., 2·35 ; N.E., 3·18 ; S.W., 2·66 ; and S.E., 3·89. The explanation of the high general death-rate in the Bulwell district is to be found in the excessive prevalence and fatality of diseases like bronchitis, pneumonia, pleurisy, and heart affections, which are almost always in evidence in this manner during and following epidemics of influenza, such as that which occurred in the winter of 1899-1900. The deaths ascribed to influenza proper in Bulwell at this time were not specially numerous, but the exaggerated mortality from the above-mentioned disorders is a better criterion of its prevalence

and fatality than the number of certificates specifying it as a death cause. The same remarks are applicable, though in a minor degree, to S.W., as regards its high death-rate (21·8) and one prominent cause of it, but in this division no less than 23 deaths were certified as due to influenza during a period of little more than four weeks.

The other district death-rates are relatively low, and call for little comment, but it may be noted that the rates in N.E. and S.E. would have been considerably lower but for their excessive zymotic mortality.

The following is a brief summary of the local distribution of the seven principal zymotic and other diseases scheduled in the accompanying table :

MEASLES was present, though in sub-epidemic form throughout the year. It was certified as the cause of 45 deaths ; 23 of these were in N.E., 12 in S.W., and 6 in S.E. ; 18 were in the second quarter and 11 each in the first and third quarters.

SCARLET FEVER was more uniformly distributed, both in time and place. The lowest numbers of deaths were 8 each in N.W. and S.W., and the highest 14 and 15 in Bulwell and N.E. respectively. The contour of the usual seasonal curve was completely changed in the case of scarlet fever, the autumn being the period of lowest prevalence and fatality.

DIPHTHERIA occurred in all the districts, but was relatively most prevalent in Bulwell, N.W. and S.W. There was, however, no local tendency to epidemic extension of this disease at any time during the year.

WHOOPIING-COUGH was epidemic during the latter part of the year in almost all parts of the town, but N.E. suffered from its incursions more than any other district. The disease was more highly prevalent at the close of the year than at any previous period.

NOTTINGHAM SUB-DISTRICTS.

Summary of Statistics for 1900.

The total Births and Deaths are made up from the Weekly Returns of the Registrars without correction. The Deaths in detail from the seven principal Zymotic Diseases, and the Notifications, are distributed to the districts in which the cases originated.

	Population.			Births.	Birth Rate.	Deaths.			Death Rates.			DEATHS FROM								Notified Cases of					
	Census.		Approximate Enumeration.			Total.	Under 1 year.	From 7 prin. Zymotic Diseases.	Total per 1000 of population.	Under 1 year per 1000 Births	From 7 prin. cipa Zymo- tic Diseases.	Small Pox.	Measles.	Scarlet Fever	Diphtheria.	Whooping- Cough.	"Fever."	Diarrhoea.	Influenza.	Cancer.	Phthisis.	Small-Pox.	Scarlet Fever	Diphtheria.	Enteric Fever.
	1881.	1891.	1901.																						
Bulwell ..	26,712	34,262	41,888	1346	32.1	968	219	100	23.1	163	2.39	..	2	14	7	15	10	52	8	25	46	..	313	20	57
N.W. ..	39,574	53,699	58,388	1489	25.5	943	267	137	16.1	179	2.35	..	2	8	8	19	11	89	24	50	76	..	300	34	105
N.E. ..	53,911	63,870	66,274	1788	27.0	1250	385	211	18.9	215	3.18	..	23	15	5	39	24	105	25	58	109	..	326	26	170
S.W. ..	26,080	32,072	39,510	1077	27.2	861	231	105	21.8	214	2.66	..	12	8	5	7	17	56	23	28	49	..	275	25	102
S.E. ..	40,295	29,974	33,692	1031	30.6	600	220	131	17.8	213	3.89	..	6	10	3	14	13	85	14	30	59	..	180	11	71
The whole City..	186,572	213,877	239,752	6731	28.1	4622	1322	684	19.3	196	2.85	..	45	55	28	94	75	387	94	191	339	..	1394	116	505

ENTERIC FEVER was less in evidence, by some 20 per cent. so far as cases were concerned, and by some 34 per cent. as regards deaths, than during 1899; but its prevalence and fatality were both still far above the average of recent years. Bulwell and N.W. suffered less from its ravages than the other divisions in proportion to population.

EPIDEMIC DIARRHŒA was highly prevalent and fatal in all the poorer parts of the city, but S.E. among the sub-districts was by far the greatest sufferer from this complaint in the ratio of its population.

INFLUENZA in a severe form was epidemic in all districts during the first few weeks of the year, and to this cause must in great measure be attributed the exaggerated mortality from respiratory and heart diseases and phthisis which occurred at and subsequent to this season.

PHTHISIS.—The death-rates per 1,000 living from lung consumption alone were as follows in the several sub-districts:—Bulwell, 1·10; N.W., 1·30; N.E., 1·65; S.W., 1·24; S.E., 1·75. The death-rate from phthisis for the entire city was 1·41, and from all tuberculous diseases, 2·02.

GENERAL REPORT.

Zymotic Diseases—The mortality from the 7 principal zymotic diseases during 1900 was less than that in 1899 by almost exactly 1·0 per 1000 of the population according to the returns of the Registrar-General, and by about 1·23 per 1000 according to my figures. The Registrar-General's death-rate per 1000 living was 2·35, and my rate 2·93. The difference between the two rates is due as before to the discrepancy between our estimates of the number of deaths caused by epidemic diarrhœa. The numbers of deaths returned respectively by the Registrar-General and myself for each of the other death-causes in this group are, as usual, almost precisely identical.

The death-rate per 1000 from measles was 0·19, as compared with 0·58 in the preceding year. The rate from scarlet fever was 0·23, the same that is as during 1899, and this notwithstanding that the number of cases had fallen off about 44/°. The rate from diphtheria was between 0·11 and 0·12, against 0·13 during 1899. The whooping-cough rate was 0·43 per 1000, as compared with 0·23 in 1899. The enteric fever rate was 0·32 per 1000, against 0·48 in the previous year. The rate from epidemic diarrhœa, according to the Registrar-General's figures, was 1·08 per 1000, as compared with 1·68 in 1899, and according to my figures 1·63, against 2·52.

With the view of securing greater uniformity in the method of certifying deaths from diarrhœa, and thus of obtaining more reliable statistics of its fatality, the Society of Medical Officers of Health at the close of 1900 issued the following memorandum to the Medical Officers of Health throughout the country:—

The Incorporated Society of Medical Officers of Health.

197, HIGH HOLBORN, LONDON, W.C.

MEMORANDUM ON CLASSIFICATION OF "DIARRHŒA" DEATHS.

TO MEDICAL OFFICERS OF HEALTH.

The Registrar-General has issued fresh instructions respecting registration of "diarrhœa" deaths to all district registrars of births and deaths, which are as follow :

"DIARRHŒA.—This should be registered as *the cause of death* only when diarrhœa is written alone, or when it is coupled with some *ill-defined* cause, such as atrophy, debility, marasmus, thrush, convulsions, teething, old age, or senile decay. In addition to deaths ascribed to diarrhœa, deaths from *intestinal* or *enteric catarrh*, from *gastro-intestinal* or *gastro-enteric catarrh*, or from *epidemic enteritis* or *zymotic enteritis*, must be included under this heading; but deaths from *gastric catarrh*, *gastro-enteritis*, or *enteritis*, must be *excluded* from this heading."

When, however, such terms as *gastric catarrh*, *gastro-enteritis*, *muco-enteritis*, etc., appear in death certificates, medical officers of health should make inquiry of the certifying practitioners as to whether they considered that the illness which had caused the deaths was of the nature of *epidemic* or *zymotic enteritis*. If the reply is in the affirmative, the deaths should be entered under "diarrhœa," and be included in the diarrhœa and zymotic death-rates, and it should be stated when such deaths are so included; but if the illness is found *not* to be of that nature, then the deaths should be entered under the heading "Enteritis," among Diseases of the Digestive System, or under "All other Causes."

Such terms as *cholera*, *dysentery*, *choleraic* or *dysenteric diarrhœa*, etc., should (in the absence of Asiatic Cholera) be included in the diarrhœa and zymotic death-rates.

When *diarrhœa* is coupled with some *well-defined* cause of death in death certificates, such as *phthisis*, *tuberculosis*, *tubercular peritonitis*, *pneumonia*, *cancer*, *syphilis*, etc., the death should not be included under "diarrhœa."

A separate column for all deaths certified under the name of *epidemic enteritis* or *zymotic enteritis*, should be included under Specific Febrile Diseases in statistical tables of causes of death.

Attention should not as a rule be paid to the position of the name "diarrhœa" in death certificates as the *primary* or *secondary* cause of death, since this distinction is employed so arbitrarily by different medical practitioners as to be quite worthless for the purpose of classification.

Inasmuch as *uniformity of classification* is the only basis on which reliable and comparable statistics can be founded, the Society most earnestly requests that you will compile your statistics so as to accord with these recommendations.

The Society would ask you to use your influence with the medical men in your district to induce them to comply with the directions of the Royal College of Physicians respecting certification of "diarrhœa" deaths in any way which may appear best to you.

The Society would suggest that much may be done in that direction by letters to or personal interviews with medical practitioners, or by bringing the matter prominently before any medical society there may be in your district.

Copies of a memorandum addressed to Medical Practitioners may be obtained for distribution from the Honorary Secretaries.

JOHN C. McVAIL, M.D., *President.*

FRANCIS J. ALLAN, M.D., }
HENRY KENWOOD, M.B., } *Hon Secretaries.*

November, 1900.

Nottingham, 1900. Temperature, Rainfall, and Seasonal incidence of Zymotic Diseases.

		THIRTEEN FOUR-WEEKLY PERIODS, ENDING ON													TOTAL.
		Jan. 27	Feb. 24	Mar. 24	April 21	May 19	June 16	July 14	Aug. 11	Sept. 8	Oct. 6	Nov. 3	Dec. 1	Dec. 29	
Mean Temperature	..	39.0	34.175	38.325	41.725	46.075	53.825	57.55	60.75	55.35	53.00	48.225	42.775	43.725	47.269
Rainfall in Inches	..	3.386	2.732	1.288	1.068	1.452	3.353	1.201	4.300	1.049	1.710	1.255	2.024	2.005	26.823
Onsets of Cases of															
Scarlet Fever	..	137	161	94	109	134	116	97	89	79	73	74	115	114	1392
Diphtheria	..	17	11	14	4	3	7	5	7	5	18	10	10	5	116
Enteric Fever	..	21	30	15	21	17	28	12	36	61	70	83	69	38	501
Recorded Deaths from															
Measles ..	..	3	1	5	8	3	5	6	3	..	2	2	1	2	41
Whooping-Cough	..	1	..	2	1	2	1	2	6	20	9	12	8	31	95
Diarrhoea..	..	12	12	6	10	9	8	11	85	116	62	28	10	6	375

The figures in this table are compiled from the weekly returns, and therefore subject to some correction; also, as the dates of onset are taken instead of dates of notification in the case of the notifiable diseases, it will be found that the numbers here do not coincide with those of other tables dealing with the same subject, but giving dates of notification instead of dates of onset.

All who are interested in this branch of vital statistics will welcome and support the action taken in the matter by the Registrar-General and the Society of Medical Officers of Health, for there has been a strong demand for such action from all quarters, and especially from medical officers of health, for many years past, but we must not look for too much improvement as a result of such action in the immediate future, for it is extremely difficult to induce the ordinary medical practitioner to recognise the importance of the matter from the statistic's standpoint, and still harder to afford him a rough and ready means of distinguishing so-called epidemic diarrhœa from other disorders characterized by somewhat similar symptoms.

As in former reports, I shall give here my own figures of diarrhœa mortality when discussing local conditions and statistics by themselves, and those of the Registrar-General when comparing the latter with those of other places the figures for which are furnished in collective and available form by the Registrar-General alone.

Zymotic Death Rates.

(Average) for previous Ten Years, and for 1900.

	Nottingham.		London.		33 Towns.	
	10 years. 1890-99.	1900.	10 years. 1890-99.	1900.	10 years. 1890-99.	1900.
Small Pox ...	0·00	—	0·01	0·00	0·01	0·00
Measles ...	0·41	0·18	0·62	0·42	0·58	0·43
Scarlet Fever ...	0·20	0·22	0·20	0·08	0·21	0·13
Diphtheria ...	0·08	0·12	0·49	0·34	0·33	0·35
Whooping-Cough ...	0·37	0·42	0·53	0·43	0·49	0·45
Enteric Fever ...	0·29	0·33	0·15	0·17	0·20	0·20
Diarrhœa ...	1·11	1·00	0·74	0·78	0·96	0·94
Total Zymotic Rate	2·46	2·35	2·74	2·22	2·78	2·50

Small-Pox was happily absent from Nottingham throughout the year, but 57 deaths occurred in the other great towns of England and Wales—Liverpool and Hull being the greatest sufferers among these—four in the lesser towns, and 42 in Scotland—all confined to Glasgow.

At the close of the year Glasgow was the only centre of infection in the 3 Kingdoms in which the disease was extending.

It is my duty once more to remind you that the temporary buildings at Bagthorpe are all we have at present to depend upon in this city by way of a hospital for the isolation of small-pox, and that with the occupation of the new union buildings your right to use even these temporary wards will be at an end.

Vaccination—Local vaccination is still making satisfactory progress. Since the slump of 1896-97, just prior to the passing of the Vaccination Act of 1898, it has continuously increased in amount. The percentage of children born, during the 12 months ending with June 1900, who were returned as having been successfully vaccinated was 50·8. The corresponding percentage of 1898-99 was 42·4. The returns for the other towns, so far as at present available, all tell the same tale.

Vaccination in Nottingham Union. Summary of Statistics, 1883-1900.

	Births.	PERCENTAGE.			Certified as Insus-ceptible of Vaccina-tion.	Had Small-Pox.	Certificates granted to "Conscien-tious Ob-jectors."
		Success-fully Vac-cinated.	Died Un-vaccinated.	Not finally accounted for.*			
Average of 5 yrs.							
1883-88 ...	6194	74·3	12·4	13·0	10	..	...
1889	5398	67·3	12·0	12·1	12	...	...
1890	5084	69·8	11·7	14·0	11	...	...
1891	5033	67·1	12·0	16·0	8	...	...
1892	5142	63·8	12·0	16·2	15	...	...
1893	5193	64·4	13·4	17·7	24	...	...
1894 1st half year	2632	62·5	12·7	11·2	9	...	...
1895 do.	2758	43·1	14·2	15·3	11	...	...
1896 do.	2728	29·4	11·7	16·4	3	...	...
†1896-97 ..	5313	18·97	15·60	52·88	3	...	...
†1897-98 ...	5391	23·05	17·23	30·47	4	...	684
†1898-99 ..	5857	42·4	15·5	10·2	28	...	543
§†1899-1900 ...	6904	50·8	15·13	7·5	15	...	682

† June of first year to July of second.

‡ Including Returns of Basford, Bulwell, and North Wilford for April, May, and June, 1899.

§ First Twelve Months' Return from new Parish of Nottingham.

* Up to July 31st of the next year.

This increase in the practice of vaccination cannot fail to be highly gratifying alike to the advocates of vaccination and the authors of the most recent Vaccination Act.

I have given a full account of the provisions of this Act in former reports, but may fitly repeat here, that the granting of certificates of exemption to “conscientious objectors” to vaccination, the use of glycerinated calf lymph in place of the humanized material, and the performance of gratuitous public vaccination in the child’s home instead of the public station, are provisions the success of which bear flattering testimony to the wisdom and foresight of those with whom they originated.

The number of certificates granted to the so-called “conscientious objectors” during the twelve months under discussion shews some advance upon that of the preceding year; but as the annual numbers have remained with little variation at a comparatively low figure (representing some 10% of the births) during the three years which have elapsed since the Act came into force, it is I think fair to suppose that we now know approximately the amount of deficit we have to expect locally from this source.

Measles.—This disease was present in Nottingham throughout the year, but caused comparatively little trouble. The only districts in which it showed any tendency to concentration were N.E. and S.W. It was apparently altogether absent from the Bulwell district until after midsummer, but caused two deaths in that division during the latter half of the year. It also occasioned only two deaths in N.W. throughout the 12 months—one each in the first and third quarters. In N.E. it was sufficiently prevalent to cause considerable trouble to school authorities, especially in the 2nd and 3rd quarters, but even in this district only 23 fatal cases were registered during the 12 months. In S.W. it was also present throughout the year, causing four deaths in each of the first two quarters and two in each of the last. In S.E. there were only six deaths from measles in the whole year, five at intervals in the first five months, and one only in the rest of the year.

There were 45 deaths altogether registered in Nottingham during 1900 as due to measles. The total for 1899 was 140, and the annual average for the ten years ending with 1899 was 88. The corresponding rates per 1000 living were 0·19 (for 1900), 0·58 (for 1899), and 0·41 (for the ten years).

Deaths from Measles, during each of the Four Quarters of 1900,
in the Registration Sub-Districts of the City.

DISTRICT.	FIRST QUARTER.	SECOND QUARTER	THIRD QUARTER.	FOURTH QUARTER.	TOTALS.
Bulwell .. ..	..	..	1	1	2
N.W.	1	..	1	..	2
N.E.	3	12	7	1	23
S.W.	4	4	2	2	12
S.E.	3	2	..	1	6
TOTALS	11	18	11	5	45

The rate in London during 1900 was 0·42, and that in the 33 great towns 0·43. The highest individual rate in any one of these was 1·07 in Preston, and the lowest 0·01 in Norwich and Portsmouth. The average decennial rate in London was 0·62, and in the 33 towns 0·58.

St. Peter's schools were closed for a period of three weeks, from November 5th onwards, and St. Patrick's, from December 9th until after the Christmas holidays, on account of the prevalence of measles and whooping-cough—but principally the last—among the children attending them. There were 45 other schools from which it was necessary to exclude children in considerable numbers, on account of either measles or whooping-cough separately or associated.

Scarlet Fever.—The notified cases of scarlet fever numbered 1,394 during 1900, against 2,580 in 1899. Last year's uncorrected total of cases therefore, though large, was equal to only 54 % of that in the immediately preceding year. The average annual number of notifications for the 10 years ending with 1899 was 1,165. In my Annual Report for 1899 I drew special attention to the mildness of type which characterized the disease of that year. I have now to record a marked increase alike in the number of severe cases and in the case-mortality during 1900, as compared with the preceding year. This was most marked—as is not unusual—in the spring, but it is a somewhat unusual circumstance that an accession of severity should

have occurred in a falling epidemic. The total case-mortality during 1899 was little more than 2 %; during 1900 it was nearly 4 %. To put it in another way, the number of cases recorded during 1900 were equal to little more than half of those in 1899—to be exact, they amounted to 54 %—whereas the deaths were slightly more numerous—55 against 53.

The distribution of cases and deaths in the common age periods were as follows: 0—1 year, 15 cases and 1 death; 1—5 years, 393 cases and 34 deaths; 5—15 years, 779 cases and 18 deaths; 15—25 years, 165 cases and 1 death; 25—35 years, 34 cases and 1 death; 35—45 years, 6 non-fatal cases; 55—65 years, 2 non-fatal cases. Roughly speaking, therefore, the case-mortality was doubled, as compared with the previous year, in those age-periods (the 1—5 and 5—15 years periods) at which the bulk of the cases occurred.

It is not to be inferred from this that the case-mortality was exceptionally high during 1900—this was not the case—but only that there was a marked rise in the relative fatality as compared with the unusually low record of 1899.

There was again a very even distribution of the disease in the town throughout the year, as the accompanying table of quarterly notifications will shew. The largest quarterly total was 414 in the first quarter, and the smallest 270 in the third. There was a rise in the number of notifications towards the end of the year, but this was almost entirely owing to a sharp outburst of the disease in S.W. There were 94 cases notified in this district during the fourth quarter, as compared with 48 in the third.

Notifications of Scarlet Fever, during each of the four quarters of 1900, in the Registration Sub-Districts of the City.

DISTRICT.	FIRST QUARTER.	SECOND QUARTER.	THIRD QUARTER.	FOURTH QUARTER.	TOTALS.
Bulwell	95	100	59	59	313
N.W.	84	93	54	69	300
N.E.	105	91	72	58	326
S.W.	78	55	48	94	275
S.E.	52	48	37	43	180
Totals	414	387	270	323	1394

The death-rate from scarlet fever in Nottingham per 1,000 living during 1900 was equal to 0·23, *i.e.*, there was 1 death from scarlet fever to every 4,348 persons. The average rate for the 10 years, 1890—99, was 0·20. The rate in London for 1900 was 0·08, and for the previous 10 years 0·20. The corresponding rates in the 33 great towns were 0·13 and 0·21. There were 7 of these towns with higher death-rates from scarlet fever than Nottingham during 1900—Blackburn with 0·61, Burnley with 0·48, Salford with 0·45, Oldham with 0·36, Preston with 0·29, Sunderland with 0·27, and Bradford with 0·25. Norwich was the only one of the great towns in which there was no recorded death from scarlet fever during 1900.

Diphtheria.—The cases of diphtheria notified in Nottingham during 1900 numbered 116. This total is less by 26 than that of 1899, but still considerably in advance of the average of recent years, the mean annual total for the decennium 1890–99 having been 79.

I have frequently alluded in the past to the difficulty of distinguishing many attacks, and especially mild attacks, of this disease from some other throat affections, but there will be less margin of error on this score in future if the new City Bacteriological Laboratory about to be equipped is properly used by the medical profession and their patients.

As regards local distribution, Bulwell was the only division entirely free during the first quarter, but the bulk of the cases were in N.W. and S.W., and especially the first, at this period. During the second quarter there were cases in all districts except the S.E., but the numbers were greatly diminished in N.W. and S.W.. During the third and fourth quarters, respectively, there were from 3 to 6 cases in each of the districts except Bulwell, but here the quarterly numbers rose to 9 and 8 respectively.

The cases and deaths were divided among the common age, periods as follows: 0—1 year, 1 fatal case; 1—5 years, 26 cases and 16 deaths; 5—15 years, 45 cases and 8 deaths; 15—25 years 25 non-fatal cases; 25—35 years, 10 non-fatal cases; 35—45

years, 6 non-fatal cases ; 45—55 years, 1 fatal case ; 55—65 years, 2 fatal cases. The case-mortality is always high in the 1—5 years age-period, but a death-rate of 61‰ is extremely excessive. It is necessary of course to make some allowance for unreported and unrecognised cases, but even when such allowance is freely made the fact remains, that compared on even terms with the corresponding local figures of other years the mortality is high beyond all precedent. There was no fatal case among the 41 between 15 and 45 years of age, but the 3 cases recorded between 45 and 65 years all proved fatal.

Notifications of Diphtheria, during each of the Four Quarters of 1900,
in the Registration Sub-Districts of the City.

DISTRICTS.	FIRST QUARTER.	SECOND QUARTER.	THIRD QUARTER.	FOURTH QUARTER.	TOTALS.
Bulwell	0	3	9	8	20
N.W.	20	4	6	4	34
N.E.	8	8	5	5	26
S.W.	12	3	4	6	25
S.E.	3	0	3	5	11
TOTALS	43	18	27	28	116

The 28 deaths during 1900 correspond with an annual rate per 1,000 of 0·12, as compared with one of 0·13 for 1899, and 0·08 for the ten years, 1890–1899.

The death-rate from this disease in London was 0·34, and in the 33 towns 0·35 during 1900. The decennial rates in London and the great towns were respectively 0·53 and 0·49. Two of the great towns had death-rates of more than 1·0 per 1,000 from diphtheria during 1900. These were Norwich (1·51) and Sheffield (1·26). The town with the lowest rate was Huddersfield (0·02).

Twenty-two of these towns had higher rates, one (Bolton) had the same rate, and nine had lower rates than Nottingham during 1900.

Whooping-Cough.—During the first half of 1900 there were but seven deaths from whooping-cough in all Nottingham, two each in N.W. and N.E. in the first quarter, and three in N.W. in the second. During the 3rd quarter the disease rapidly extended in almost all parts of the city, but especially in N.E., and this extension continued up to and after the end of the year, N.E. and S.E. being the districts most affected at this time, although none was free from the disease. There were 35 deaths in the 3rd, and 52 in the 4th quarter. There were altogether 94 deaths during the year, and these correspond with a rate of 0·43 per 1000 living. The number of deaths and the rate for 1899 were 54 and 0·23 respectively. The mean rate for the preceding ten years was 0·37.

Deaths from Whooping-Cough, during each of the Four Quarters of 1900, in the Registration Sub-Districts of the City.

DISTRICT.			FIRST QUARTER.	SECOND QUARTER.	THIRD QUARTER.	FOURTH QUARTER.	TOTALS.
Bulwell	..	..	..	..	7	8	15
N.W. ...	..	..	2	3	7	7	19
N.E. ..	..	..	2	..	17	20	39
S.W. ..	..	..	..	..	1	6	7
S.E. ..	..	..	..	..	3	11	14
TOTALS	..	..	4	3	35	52	94

The death-rate per 1000 from whooping-cough in London during 1900 was 0·43, and in the 33 towns taken together 0·45. The highest rates in these towns were 0·84 in Liverpool and Salford, and the lowest 0·07 in Halifax. The mean ten-yearly rate (1890-99) in London was 0·53, and in the 33 towns 0·49.

St. Peter's school was closed for a period of 3 weeks, from November 5th forwards, and St. Patrick's from December 9th until after the Christmas holidays, on account of the prevalence of measles and whooping-cough (and especially whooping-cough) among the children attending these schools.

Enteric Fever.—I have once more to report the occurrence of an excessive annual number of enteric fever cases in this city. There was, however, a substantial reduction, both in cases and deaths, as compared with 1899. The total number of cases for the 52 completed weeks of 1900, without correction, was 505. The total for 1899 was 613. There was thus a decline of prevalence as compared with the previous year of 16%, but with the exception of 1899 there has been no year since the commencement of compulsory notification with so high a total as 1900. The highest previous annual number of cases was 490, in 1893.

The deaths from enteric fever during 1900 amounted to 75. The general case mortality for this year therefore was equal to 1 in 6·7, or 14·85%. The male cases numbered 296, and the female 209. The deaths among males were 47, and among females, 28. The male case mortality therefore was equal to 15·9%, and the female to 13·4%.

The cases and deaths in the usual age periods were as follows:—0—1 year, one non-fatal case; 1—5 years, 33 cases and 8 deaths; 5—15 years, 138 cases and 9 deaths; 15—25 years, 150 cases and 20 deaths; 25—35 years, 110 cases and 16 deaths; 35—45 years, 53 cases and 12 deaths; 45—55 years, 16 cases and 6 deaths; 55—65 years, 10 cases and 4 deaths; 65—75 years, 1 non-fatal case. The case mortality was high in the 1—5 years, 35—45 years, and 45—55 years age periods, but otherwise generally below the average (which for all ages may be roughly stated as about 18%—17% for males and 19% for females.)

NOTTINGHAM, 1900.

Enteric Fever. Cases and Deaths in Age Periods.

	0-1 yrs.	1-5 yrs.	5-15 yrs.	15-25 yrs.	25-35 yrs.	35-45 yrs.	45-55 yrs.	55-65 yrs.	65-75 yrs.	Over 75 yrs.	TOTAL
Cases ..	1	33	138	150	110	53	16	10	1	..	512*
Deaths ..	..	8	9	20	16	12	6	4	..	..	75

* Total for entire year of 365 days.

The seasonal curves of prevalence and fatality were as usual well marked, although the special features of the curves were not so pronounced as those of 1899. There were 80 cases and 10 deaths in the first quarter of the year, 72 cases and 9 deaths in the second, 133 cases and 15 deaths in the third, and 220 cases and 40 deaths in the fourth. But the period of special prevalence cannot be well shewn in quarters. It extended from the week ending August 18th to the close of the year, for a period, that is, of 20 weeks. During this time there occurred, in comparatively even distribution, 340 cases and 52 deaths. During the 32 weeks prior to this there were 165 cases and 23 deaths. The accompanying table gives the numbers of cases and deaths recorded during each week of the year.

Nottingham, 1900. Enteric Fever. Cases and Deaths in Weekly Periods

Week ending	1	"	"	"	2	"	"	"	"	3	"	"	"	"	4	"	"	"	"	5	"	"	"	6	"	"	"	"
	6	13	20	27	3	10	17	24	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30		
Cases..	12	7	4	4	9	4	2	10	8	6	2	7	4	4	2	5	6	8	4	5	2	6	10	6	10	4	= 151	
Deaths	2	2	-	-	-	-	-	1	1	1	1	2	1	..	..	1	1	2	2	1	..	..	..	..	..	2	= 20

Week ending	7	"	"	"	8	"	"	"	"	9	"	"	"	"	10	"	"	"	"	11	"	"	"	12	"	"	"	"
	7	14	21	28	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	1	8	15	22	29		
Cases..	3	3	2	1	4	1	9	15	18	13	15	27	15	22	18	17	20	23	17	17	18	19	14	15	10	8	= 354	
Deaths	1	1	..	1	..	..	1	2	1	1	2	2	3	2	2	8	4	3	3	2	4	4	1	3	2	2	= 55

The death-rate for the year from enteric fever according to my estimate was equal to nearly 0.32, and according to that of the Registrar-General to 0.33 per 1000. The mean rate for the ten years 1890-99 was 0.29. The rate in London was 0.17, and in the 33 towns 0.20 during 1900. The decennial rate in London was 0.15, and in the 33 towns 0.20. Five of the great towns had higher rates than Nottingham during 1900, and 27 lower rates. Those with higher rates were:—Portsmouth (0.47), Wolverhampton (0.45), Preston (0.39), Sunderland (0.37), and Birmingham (0.35). Four of the great towns had death-rates from enteric fever below 0.10 per 1000. These were Croydon (0.07), Gateshead and Newcastle (0.08), and Brighton (0.09).

The detailed description of the local distribution of the disease during 1899 which I gave in my annual report for that year would apply almost equally to that of 1900, except that there were fewer cases and somewhat less tendency to their local concentration in the latter year. The districts in which this comparative exemption was best illustrated were, (1) the southern parts of the Meadows near Trent Bridge, (2) the parts of New Radford bordering on Alferton Road, (3) the District known as Cobden Park (Radford), and (4) that of Hyson Green. There were certain other localities, however, in which the aggregation of cases was practically as well marked during 1900 as in the preceding year. These localities were (1) the districts known as the Meadow Platts, (2) the lower parts of Sneinton and Poplar, (3) the Leen Side, and (4) parts of Radford bordering on Denman Street.

It was again impossible to connect in a causative relation any considerable number of cases with infected milk and other food supplies, and I have had to fall back as usual upon the conservancy system of excrement disposal, or, rather, the defects incidental to the use of the system on a large scale in dense and poor neighbourhoods, for an explanation of much of the extraordinary local prevalence of the disease.

It is an undoubted fact, as I have often previously stated, that the use of the wooden instead of the steel closet-pail adds greatly to the risk of infection which in some degree is inseparable from conservancy methods of excrement disposal. Although special steel pails are used for receiving the dejections of all known enteric fever cases nursed at home, it is obvious that many such cases must escape our knowledge, and that even with those that are known this precaution is scarcely ever taken in the early stages of the disease, because cases are not notified until the symptoms are fairly definite and they seldom are so until after the lapse of some considerable time from the onset. It follows then that many of our wooden closet-pails must be receiving enteric fever dejecta, and, as they are absorbent and uncleanable, they probably retain and give off the poison—in half-dried dust—for a considerable time. Nottingham is now the only large conservancy town in which the wooden pail is at all extensively used.

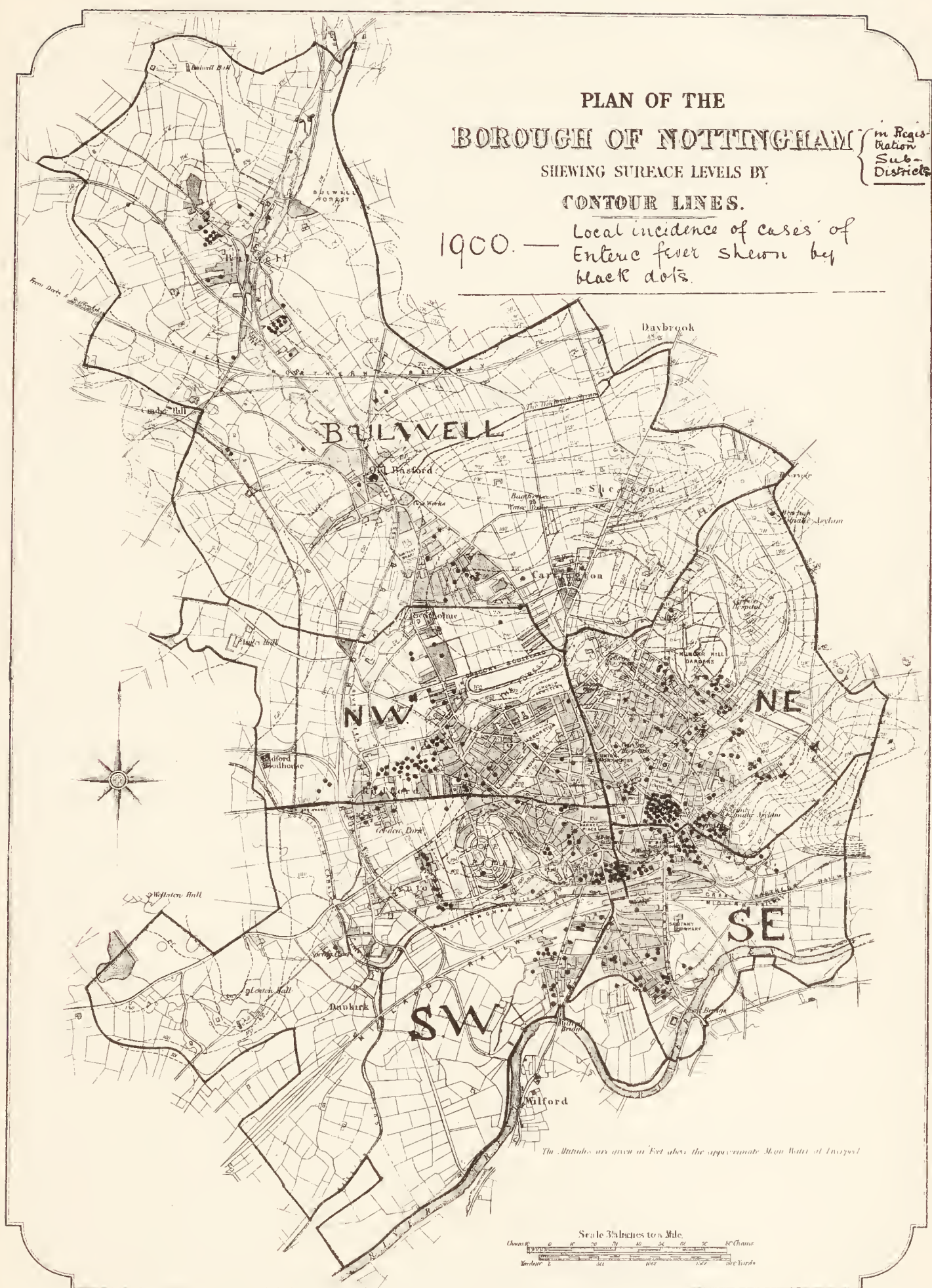
PLAN OF THE BOROUGH OF NOTTINGHAM

SHewing SURFACE LEVELS BY

CONTOUR LINES.

in Regis-
tration
Sub-
Districts

1900. — Local incidence of cases of
Enteric fever shewn by
black dots.



NOTTINGHAM, 1900.

ENTERIC FEVER.—Cases and Deaths, Male and Female, during each of the Four Quarters of the Year in Registration Sub-Districts.

		FIRST QUARTER.		SECOND QUARTER.		THIRD QUARTER.		FOURTH QUARTER.		TOTALS.		
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.			
Bulwell ... {	Cases Deaths	7 —	6 —	5 1	5 1	13 3	10 2	8 2	3 1	57 10	Cases Deaths	Bulwell
N.W. ... {	Cases Deaths	5 1	4 1	13 —	7 —	9 2	10 —	36 3	21 4	105 11	Cases Deaths	N.W.
N.E. ... {	Cases Deaths	13 1	7 3	13 —	10 2	28 5	17 —	50 9	34 4	172 24	Cases Deaths	N.E.
S.W. ... {	Cases Deaths	10 —	16 3	6 —	5 1	16 2	15 —	24 7	15 4	107 17	Cases Deaths	S.W.
S.E. ... {	Cases Deaths	9 1	4 —	2 2	7 2	14 3	5 —	18 5	12 —	71 13	Cases Deaths	S.E.

Cases for the entire Year of 365 days.

TABLE I.—NOTTINGHAM, 1889-1900.

General Enteric Fever Data.

YEAR.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Population ..	208,826	211,695	214,606	217,550	220,551	223,584	226,659	229,775	232,935	236,139	239,384	237,770
Cases of enteric fever	367	337	375	198	479	334	422	444	428	423	607	505*
Deaths from enteric fever ..	66	58	70	36	68	61	55	75	45	53	114	75
Death-rates from enteric fever..	0·31	0·27	0·33	0·15	0·31	0·28	0·24	0·34	0·21	0·22	0·48	0·33
Mean air temperature ..	47·2	47·3	50·4	45·5	49·0	47·9	47·0	48·2	48·1	49·2	48·3	47·269
Rainfall in inches	25·606	17·698	25·889	21·579	20·165	20·252	20·753	22·992	23·726	19·750	22·635	26·823
Death-rates from enteric fever in great towns ..	0·20	0·19	0·20	0·15	0·24	0·19	0·20	0·19	0·18	0·20	0·22	0·20

* Number obtained from Weekly Returns.

The incidence of enteric fever cases upon houses furnished with pail-closets, midden-privies, and w.c.'s respectively, was as follows :—

1.	Houses with pail closets	-	-	1 case in 92 houses.
2.	„ „ midden-privies	-	1 „ 20 „	
3.	„ „ W.C.'s	-	-	1 „ 407 „

A spot map accompanies this section, shewing the areas and localities affected by the disease during 1900.

The concentration of cases in neighbourhoods to the leeward (in the direction of the prevailing winds) of the refuse-heaps at the Eastcroft and Radford depôts, which was so well marked during 1899, was somewhat less apparent in 1900, but still sufficiently obvious. There is of course nothing surprising in this concentration. What is true for the single dwelling in this matter is true for the town. The accumulation of such refuse in the immediate vicinity of dwellings, single or multiple, is fraught with much danger to the health of their inhabitants.

The meteorological conditions during 1900 were much less favourable to the propagation of enteric fever than those of 1899, the temperature being lower and the rainfall higher, especially during the summer months, in the former than in the latter year.

Diarrhœa.—I have already discussed at length under the general heading of “Zymotic Diseases” the difficulty of obtaining uniformity of practice among medical men in their certification of deaths from diarrhœa. I have, in this as in former reports, pointed out the impossibility of obtaining reliable statistics of mortality from the epidemic malady so long as the present system, or rather lack of system, in certification and classification obtains among medical men and statisticians. I have also given, under the above heading, some account of the action recently taken by the Society of Medical Officers of Health and the Registrar-General with the view of securing greater uniformity of practice among those responsible for the provision and preparation respectively of statistical material. On the present occasion, even after the exercise of reasonable care in compiling the statistics of

diarrhœa mortality from the returns of the local Registrars of Births and Deaths, I find that my own total of diarrhœa deaths exceeds that of the Registrar-General by no less than 48 %; my total amounts to 387 and that of the Registrar-General to 261.

In comparing the local rate of mortality from this cause with the rates of other districts obtained from the reports of the Registrar-General, I am perforce constrained to adopt the figures of the latter authority in order to insure a comparison upon even terms, but in dealing with the current local figures by themselves, or in comparing them with those of past years, I shall adhere to my own larger estimate.

Epidemic diarrhœa is peculiarly a disease of dense town districts, and the hand-fed infants of the poor in the more crowded neighbourhoods are the greatest sufferers. I give the usual tables shewing the weekly deaths from diarrhœa, and the 1-foot and 4-foot earth temperatures, during the period of special prevalence, that is, from about the middle of July to the middle of October. The highest weekly number of deaths was 33, and these occurred during the week ending September 1st, but there was a weekly average of rather more than 29 from July 29th to September 8th. The 4-foot earth temperature throughout this period averaged something over 60° Fahrenheit, *i.e.*, 4° above the temperature at which, according to the late Dr. Ballard, the rise of diarrhœa mortality commonly begins.

The districts principally affected were :—the Meadows, the lower parts of Sneinton and Poplar, the Meadow Platts, the streets off St. Ann's Well Road, and almost the whole of Radford (from Alferton Road to St. Peter's Street); but the first-named districts, situated either in the south-east division or just over the boundaries between it and N.E. and S.W., and lying on a wide alluvial flat, suffered in a much higher degree than any other parts of the town. According to my estimate, the death-rate from diarrhœa in the south-east district was almost exactly 1 per thousand higher than that of the town as a whole. The death-rate from this disease in Nottingham during 1900, according to the Registrar-General's estimate, was equal to 1·08, against an average annual rate of 1·11 for the ten years 1890 to 1899. The rate in London during 1900

was 0·78, and in the 33 great towns 0·94. The decennial rates in London and in the 33 towns were, respectively, 0·74 and 0·96. Thirteen of the great towns had higher rates, and 19 lower rates, than Nottingham during 1900. The highest of these town rates was that of Hull (1·68), and the lowest that of Halifax (0·23).

NOTTINGHAM, 1900.

Weekly Deaths from Diarrhœa in Registration Sub-Districts.

	July				August				WEEK ENDING September					October				Nov.	
	7	14	21	28	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10
Bulwell..	1	..	3	2	1	1	3	5	5	4	2	3	2	1	..	2	..	1	
N.W.	..	2	2	1	6	5	4	5	9	6	4	7	4	2	3	..	3	2	..
N.E.	..	1	3	3	14	6	7	8	11	10	2	3	6	..	3	1	2	1	1
S.W.	4	3	6	7	5	4	4	2	5	..	1	2	1	1	1	..
S.E.	..	3	2	8	7	9	3	9	4	6	4	3	4	4	1	3	..	1	..
	..	7	7	19	32	27	22	30	33	31	16	20	17	9	10	5	8	5	2

Epidemic Influenza.—This disease was highly prevalent and fatal in Nottingham at the close of 1899, and for the first three weeks of 1900 all districts of the town were affected, but Bulwell was the lightest and South-West the heaviest sufferer from its incursion. The following table gives the death-rates from actual influenza (according to registration returns):—

NOTTINGHAM, 1900.

Death-rates from Influenza in Registration Sub-Districts.

Bulwell	0·19
North-West	0·41
North-East.....	0·38
South-West	0·58
South-East.....	0·41

But these rates would be immensely swelled if all deaths directly or indirectly due to this disease were included. An example of some of the excluded deaths to which I refer will make this plain. The average weekly number of deaths from bronchitis, pneumonia, and pleurisy in Nottingham in January is about 18. The weekly number of such deaths during the first three weeks of 1900 were respectively 75, 70, and 51.

NOTTINGHAM, 1900.

Deaths from Influenza, and from Bronchitis, Pneumonia, and Pleurisy, in weekly periods.

	WEEK ENDING											
	Jan. 6	Jan. 13	Jan. 20	Jan. 27	Feb. 2	Feb. 10						
Deaths from Influenza	15	..	33	..	18	..	7	..	2	..	3	
Deaths from Bronchitis, Pneumonia and Pleurisy	75	..	70	..	51	..	19	..	17	..	18	

1895.

	WEEK ENDING																	
	July 6	July 13	July 20	July 27	Aug. 3	Aug. 10	Aug. 17	Aug. 24	Aug. 31	Sept. 7	Sept. 14	Sept. 21	Sept. 28	Oct. 5	Oct. 12	Oct. 19	Oct. 26	Nov. 2
Earth Temperature 1 ft. below surface ..	60.6	61.5	60.8	60.5	61.0	60.5	62.0	63.4	60.5	60.8	59.4	57.5	58.0	56.5	51.6	50.0	44.5	43.2
Earth Temperature 4 ft. below surface ..	58.5	58.9	59.0	59.3	59.5	59.5	59.5	60.4	60.3	60.1	60.0	59.1	58.5	58.4	56.7	54.2	52.0	49.0
Deaths from Diarrhoea..	5	9	20	25	27	29	28	27	28	33	24	33	32	15	26	7	8	10

1896.

	WEEK ENDING													
	June 27	July 4	July 11	July 18	July 25	Aug. 1	Aug. 8	Aug. 15	Aug. 22	Aug. 29	Sept. 5	Sept. 12	Sept. 19	Sept. 26
Earth Temperature 1 ft. below surface of ground	60.6	60.6	62.4	63.7	63.0	60.7	59.4	59.5	58.8	57.7	57.4	58.4	57.2	53.2
Earth Temperature 4 ft. below surface of ground	57.8	58.0	58.3	59.7	60.1	59.9	59.8	59.1	59.0	58.7	58.0	57.8	58.1	56.8
Deaths from Diarrhoea	6	4	13	13	20	16	14	12	13	8	2	7	6	2

1897.

	WEEK ENDING												
	July 10	July 17	July 24	July 31	Aug. 7	Aug. 14	Aug. 21	Aug. 28	Sept. 4	Sept. 11	Sept. 18	Sept. 25	Oct. 2
Earth Temperature 1 ft. below surface of ground	59.9	62.7	63.3	63.8	64.9	63.1	61.6	59.2	57.4	53.7	55.0	53.1	53.6
Earth Temperature 4 ft. below surface of ground	57.6	57.8	58.8	59.5	60.3	61.0	60.6	60.0	59.3	57.7	56.7	55.9	55.3
Deaths from Diarrhœa ..	4	5	15	40	88	95	81	57	29	23	12	8	5

1898.

	WEEK ENDING																		
	July 9	July 16	July 23	July 30	Aug. 6	Aug. 13	Aug. 20	Aug. 27	Sept. 3	Sept. 10	Sept. 17	Sept. 24	Oct. 1	Oct. 8	Oct. 15	Oct. 22	Oct. 29	Nov. 5	Nov. 12
Earth Temperature 1 ft. below surface ..	59.8	60.6	61.8	60.9	60.9	59.4	62.8	62.2	58.7	63.2	61.4	58.7	53.4	54.7	51.7	52.3	52.4	49.4	47.1
Earth Temperature 4 ft. below surface ..	56.3	56.9	57.7	58.2	58.4	58.3	59.1	59.8	59.4	59.4	60.3	59.9	58.5	56.9	56.2	54.8	54.4	53.6	51.8
Deaths from Diarrhœa..	5	2	2	9	8	14	13	28	34	39	53	41	27	15	11	9	6	3	5

1899.

	WEEK ENDING.																		
	July 8	July 15	July 22	July 29	Aug. 5	Aug. 12	Aug. 19	Aug. 26	Sept. 2	Sept. 9	Sept. 16	Sept. 23	Sept. 30	Oct. 7	Oct. 14	Oct. 21	Oct. 28	Nov. 4	
Earth Tem- perature 1 ft. below surface ..	59.8	64.7	66.1	62.7	65.7	63.0	63.8	65.4	62.8	62.1	59.0	54.8	51.2	49.2	47.0	45.3	47.0	48.2	
Earth Tem- perature 4 ft. below surface ..	57.1	58.5	60.4	60.9	61.1	61.5	61.4	61.5	62.0	61.3	60.8	59.7	57.5	55.3	53.4	51.8	50.4	50.6	
Deaths from Diarrhœa..	6	18	29	33	55	55	54	61	46	37	40	25	19	11	5	3	4	3	

1900.

	WEEK ENDING																		
	July 7	July 14	July 21	July 28	Aug. 4	Aug. 11	Aug. 18	Aug. 25	Sept. 1	Sept. 8	Sept. 15	Sept. 22	Sept. 29	Oct. 6	Oct. 13	Oct. 20	Oct. 27	Nov. 3	Nov. 10
Earth Temperature 1 ft. below surface ..	60.1	62.6	64.4	67.8	63.6	59.2	62.7	62.7	59.4	57.9	56.5	57.1	56.6	52.2	53.1	48.6	48.2	48.6	49.1
Earth Temperature 4 ft. below surface ..	56.5	57.1	59.4	61.7	62.8	61.1	60.4	61.2	60.4	59.6	58.7	58.0	57.7	56.6	55.2	53.9	52.2	51.3	51.3
Deaths from Diarrhœa..	..	7	7	19	32	27	22	30	33	31	16	20	17	9	10	5	8	5	2

Tables giving the cases and deaths, in age periods, of the notifiable infectious diseases, the ratio of deaths to cases, and the deaths from the non-notifiable infectious diseases, which have occurred in Nottingham during 1900 and other recent years. Further Notification Tables will be found under the special sections dealing separately with notifiable infectious diseases.

1895.

		0-5 yrs.	5-15 yrs.	15-25 yrs.	25-35 yrs.	35-45 yrs.	45-55 yrs.	55-65 yrs.	65-75 yrs.	Over 75 yrs.	Total.
Small Pox	<i>Cases</i>	..	1	1	..	1	..	..	..	..	3
	<i>Deaths</i>	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	<i>Cases</i>	438	707	76	20	8	1	..	..	..	1250
	<i>Deaths</i>	32	17	1	1	..	..	..	..	..	51
Diphtheria	<i>Cases</i>	13	16	12	3	2	..	1	..	..	47
	<i>Deaths</i>	8	3	..	..	..	..	..	..	..	11
Enteric Fever	<i>Cases</i>	42	158	124	71	43	17	4	1	1	461
	<i>Deaths</i>	6	6	24	11	4	3	..	..	1	55

1896.

		0-5 yrs.	5-15 yrs.	15-25 yrs.	25-35 yrs.	35-45 yrs.	45-55 yrs.	55-65 yrs.	65-75 yrs.	Over 75 yrs.	Total.
Scarlet Fever	<i>Cases</i>	225	423	67	10	5	1	..	..	..	731
	<i>Deaths</i>	15	10	2	..	..	..	..	..	..	27
Diphtheria	<i>Cases</i>	22	23	4	3	..	..	1	..	..	53*
	<i>Deaths</i>	5	6	1	..	..	..	..	..	..	12
Enteric Fever	<i>Cases</i>	46	172	115	80	22	13	9	2	..	459*
	<i>Deaths</i>	7	19	19	16	7	3	4	..	..	75

1897.

		0-1 yr.	1-5 yrs.	5-15 yrs.	15-25 yrs.	25-35 yrs.	35-45 yrs.	45-55 yrs.	55-65 yrs.	65-75 yrs.	Over 75 yrs.	Total.
Scarlet Fever	<i>Cases</i>	9	152	291	55	9	1	..	..	..	..	517
	<i>Deaths</i>	1	21	10	2	..	..	..	..	..	..	34
Diphtheria	<i>Cases</i>	2	25	21	17	7	3	..	..	..	..	75
	<i>Deaths</i>	2	13	5	1	..	..	..	..	..	..	21
Enteric Fever	<i>Cases</i>	..	41	136	116	73	38	18	4	1	1	428
	<i>Deaths</i>	..	7	9	11	7	6	4	1	..	..	45

1898.

		0-1 yr.	1-5 yrs.	5-15 yrs.	15-25 yrs.	25-35 yrs.	35-45 yrs.	45-55 yrs.	55-65 yrs.	65-75 yrs.	Over 75 yrs.	Total.
Scarlet Fever	<i>Cases</i>	14	267	549	70	20	9	2	..	..	..	931
	<i>Deaths</i>	5	20	7	..	..	..	..	..	..	..	32
Diphtheria	<i>Cases</i>	3	33	27	10	7	2	3	..	..	..	85
	<i>Deaths</i>	3	16	4	..	..	..	..	..	..	..	23
Enteric Fever	<i>Cases</i>	2	45	130	95	80	39	22	7	3	..	423
	<i>Deaths</i>	1	7	8	11	13	6	5	1	2	..	54

* Total number of cases of which particulars as to age are forthcoming.

1899.

	0-1 yr.	1-5 yrs.	5-15 yrs.	15-25 yrs.	25-35 yrs.	35-45 yrs.	45-55 yrs.	55-65 yrs.	65-75 yrs.	Over 75 yrs.	Total.
Scarlet Fever <i>Cases</i>	29	742	1525	220	49	9	6	..	..	..	2580
<i>Deaths</i>	2	29	16	4	1	..	1	..	..	..	53
Diphtheria <i>Cases</i>	3	43	51	25	8	8	3	..	1	..	142
<i>Deaths</i>	3	14	9	1	1	1	1	..	..	..	30
Enteric Fever <i>Cases</i>	..	33	170	180	119	63	31	10	6	1	613
<i>Deaths</i>	..	1	18	38	27	20	4	3	2	1	114

1900.

	0-1 yrs.	1-5 yrs.	5-15 yrs.	15-25 yrs.	25-35 yrs.	35-45 yrs.	45-55 yrs.	55-65 yrs.	65-75 yrs.	Over 75 yrs.	Total
Scarlet Fever <i>Cases</i>	15	393	779	165	34	6	..	2	..	..	1394
<i>Deaths</i>	1	34	18	1	1	..	..	..	..	..	55
Diphtheria <i>Cases</i>	1	26	45	25	10	6	1	2	..	..	116
<i>Deaths</i>	1	16	8	..	..	..	1	2	..	..	28
Enteric Fever <i>Cases</i>	1	33	138	150	110	53	16	10	1	..	512
<i>Deaths</i>	..	8	9	20	16	12	6	4	..	..	75

Nottingham. Notification Data up to the end of 1900.

	SCARLET FEVER.			ENTERIC FEVER.			SMALL POX.			DIPHTHERIA.			Deaths from Non-Notifiable Zymotic Diseases.			
	*		Ratio of known cases to Deaths.	†		Ratio.	*		Ratio.	‡		Ratio.	Measles.	Whooping Cough.	Diarrhoea.	TOTAL.
	Deaths.	Known cases		Deaths.	Known cases		Deaths.	Known cases		Deaths	Known cases					
1880	134	..	..	58	..	..	..	..	..	6	..	..	265	87	273	625
1881	353	..	..	61	..	..	4	..	..	7	..	..	34	88	202	324
1882	280	1029	3·7	71	68	1·0	51	446	8·7	21	..	..	133	73	225	431
1883	59	428	7·3	73	159	2·2	2	23	11·5	34	125	3·7	14	76	168	258
1884	37	384	10·4	68	218	3·2	..	11	..	39	113	2·9	145	129	377	651
1885	31	390	12·6	44	326	7·4	2	10	5·0	28	85	3·0	112	116	163	391
1886	13	351	27·0	61	317	5·2	2	12	6·0	10	68	6·8	175	90	328	593
1887	22	615	28·0	74	411	5·6	..	2	..	10	50	5·0	58	153	315	526
1888	25	643	25·7	89	426	4·8	12	59	4·9	34	152	4·5	115	81	157	353
1889	32	1047	32·7	66	395	5·9	..	..	..	11	66	6·0	86	153	263	502
1890	33	984	29·8	58	348	6·0	..	..	..	16	64	4·0	52	47	185	284
1891	28	895	31·9	70	396	5·6	..	..	..	21	103	4·9	110	121	180	411
1892	43	1163	27·0	36	205	5·6	..	..	..	30	76	2·5	118	117	158	393
1893	82	1511	18·4	68	490	7·2	5	53	10·6	15	81	5·4	25	59	358	442
1894	51	1164	22·8	62	363	5·8	4	59	15·8	18	56	3·1	134	118	134	386
1895	51	1250	24·5	55	461	8·3	..	3	..	11	47	4·2	1	33	441	478
1896	27	731	27·1	75	478	6·4	..	..	..	12	60	5·0	203	91	175	469
1897	34	517	15·2	45	428	9·5	..	..	..	21	75	3·6	49	117	530	696
1898	32	931	29·1	54	423	7·8	..	..	..	23	85	3·7	104	59	385	548
1899	53	2500	47·2	114	613	5·4	..	..	..	30	142	4·7	140	54	600	792
1900	55	1394	25·3	75	505	6·7	..	..	..	28	116	4·1	45	103	387	535

* Notification of Small-Pox and Scarlet Fever, from February, 1882.

† Notification of Enteric Fever and Typhus, from June, 1883.

‡ Notification of Diphtheria, from August, 1885.

§ The Registrar-General gives 261 deaths from Diarrhoea owing to a different method of classification.

Plague.—Considerable alarm has been excited during the past few months (since the latter part of August, 1900) by the importation of plague into these islands from the East, and especially to the city of Glasgow; but there can be little doubt that with the exercise of reasonable care its spread with us (after such introduction from without) can be promptly checked. There has been no evidence of any tendency to an extension of the disease beyond the coast towns or ports into which it was first introduced.

FORMS OF TABLES.

The forms of tables hitherto in use by the majority of medical officers of health in this country, exclusive of tables A. and B. of the Local Government Board, have been those drawn up by the Society of Medical Officers of Health (at the suggestion of Dr. T. O. Dudfield) in 1874, and revised in 1882-3.

In the latter part of 1900 the Society was engaged in revising these tables, mainly with the view of rendering their nomenclature more scientifically accurate, while dispensing as far as possible with an unscientific grouping of disease and the use of group death-rates. It should be mentioned, however, that the Statistical Congress of 1900 drew up a tabulation scheme of which the group division of death causes was a marked feature. The special advantage of such division of course is that it conduces to facility of reference.

The new schedule recommended by the Society of Medical Officers of Health will in all probability come into general use among medical officers of health in the near future, but for the year 1900 the old tables will still be used by myself and many others, on account of the weekly returns of the local registrars during the year having been transferred to sheets made out in accordance with the classification of these tables.

Having tabulated my deaths, therefore, according to the old scheme, I shall now proceed to discuss the death causes remaining for notice in accordance with the order and grouping laid down in that scheme (see Table III., pp. 7 to 11).

GENERAL DISEASES, &c.

Venereal Diseases.—The deaths certified as due to syphilis were 12 in number, against 19 in 1899. Nine of the 12 were those of children under one, the victims of congenital syphilis. The deaths attributed to gonorrhœa and stricture of the urethra numbered 12. All but one were those of persons aged 55 years and upwards. The deaths ascribed to gonorrhœa were somewhat more numerous than usual, but both totals represent only a small fraction of the actual mortality directly and indirectly due to these venereal maladies. It is unnecessary to explain the reason for the suppression of such death-causes as these in the majority of instances.

Septic Diseases.—The diseases embraced in this group are erysipelas, septicæmia, and puerperal fever. The total deaths from each were, respectively, 8, 16 and 10, as compared with 11, 20 and 9 during 1899. The numbers of deaths for 1900 accord also very closely with the average numbers of other previous years.

Parasitic Diseases.—There was one death only certified as due to thrush, and two to animal parasites (worms, hydatids, etc.) These numbers again are altogether below the truth.

Dietic Diseases.—Want of breast milk and starvation were credited with only five deaths, but it must be borne in mind that hand-feeding of infants is certainly the indirect cause of a large proportion of diarrhœa deaths, and consequently that this number can only refer to those deaths in the case of which the want of breast milk and other suitable food was a factor of special prominence. Alcoholism was represented as causing 16 deaths. This number again implies the suppression of the effective death cause on a large scale, for it goes without saying that the deaths more or less directly due to alcoholic intemperance must be greatly more numerous than this. As I have stated in previous reports, the best way of obtaining a fair idea of the influence of alcohol upon the death-rate is to study the mortality among persons engaged in specially “intemperate occupations.” This mortality is admirably worked out in the Decennial Supplements to the Registrar-General’s 45th and 55th Annual Reports, published respectively in 1885 and 1897.

Constitutional Diseases.—The total number of deaths in this conventional group was 758, as compared with 710, 695 and 702 in the three immediately preceding years. Rheumatism and gout were stated to have caused only 16 deaths, and rickets 33. The former figure at least is far below the actual fact. Cancer was credited with 190 deaths—a large total, but still below the figures for the two immediately preceding years, which were respectively 225 and 203. It is still a moot point whether there is an actual increase in the prevalence of cancerous diseases in progress at the present time, but it is hard to believe that the recent almost uninterrupted advance in the number of deaths yearly certified as due to malignant tumours is entirely due to greater diagnostic care and skill and more careful certification on the part of medical men.

Phthisis and other Tuberculous Diseases were considerably more fatal during 1900 than in other recent years. The total number of deaths ascribed to them was 481, as compared with 429 in 1898, and an annual average of 439 for the five years immediately preceding. The increase during 1900 is, I believe, partly to be accounted for by the lower temperature and higher rainfall of 1900—which would operate mainly by confining sufferers to their homes—and partly to the pre-disposing effects of the epidemic of influenza which occurred at the beginning of the year.

The deaths from tuberculous diseases constituted 10·6 % of all local deaths during 1900. The numbers of deaths from tubercle, and percentages of all such deaths at the usual age-periods, were as follows :—

0—1 year.....	45	deaths	and	9·4 %	of all
1—5 years ...	48	„		9·98	„
5—15 „ ...	31	„		6·4	„
15—25 „ ...	78	„		16·2	„
25—35 „ ...	73	„		15·2	„
35—45 „ ...	102	„		21·2	„
45—55 „ ...	59	„		12·3	„
55—65 „ ...	32	„		6·7	„
65—75 „ ...	10	„		2·1	„
Over 75 „ ...	2	„		0·4	„

The action of the National Association for the Prevention of Tuberculosis and its branches, in promoting the erection of sanatoria for consumptives and drawing public attention to the recognized methods of prevention and cure for this national scourge, cannot fail to bear good fruit in the future; but it is too soon at present, while the new campaign of prevention inaugurated by the Association is only in its beginning, to look for anything more than a continuance of the steady decline of prevalence and fatality which has been one of the happiest results of sanitary reform in the latter half of the 19th century.

A Sanatorium for consumptives is about to be erected near Mansfield for the benefit of patients in Nottingham and district. The site has been given by His Grace the Duke of Portland, and several large donations towards the building fund by public and private bodies and individuals, including your own Corporation. The sanatorium will, of course, be directly valuable to the patients it accommodates, but it will possess a larger value still as an object-lesson for the district it serves in all that constitutes the proper line of treatment for persons suffering from tuberculous consumption, from the preventive as well as the curative point of view.

A circular, stating a few broad facts concerning the nature and treatment of phthisis, giving simple advice, and offering gratuitous disinfection of houses and goods that are or have been exposed to risk of tuberculous infection, which has been distributed from the Health Department since 1892, will be found in the Appendix of this Report.

The work of cleansing and disinfection devolving upon the Department as a result of the issue of this circular has almost continually increased from the outset. A week seldom passes now without the receipt by us of requests from medical men or householders to undertake the disinfection of goods or premises for tuberculous disease.

The other death-causes scheduled in this section require but little notice. The mortality laid to their door varies but little. There were two deaths from purpura, 12 from anæmia and leucocythæmia, and 22 from diabetes.

Developmental Diseases.—There is no cause of death of importance in the whole of Table III. which gives rise apparently to so uniform an amount of mortality as premature birth. The deaths of which it was the certified cause in 1900 numbered 149, against 150 in 1899, and an annual average of 149 since 1891. There is also usually but little variation in the number of deaths from lung collapse (atelectasis) and congenital malformations, although the respective totals (23 and 30) for last year were somewhat above the average. The deaths from senility were returned as 182, against 197 in 1899. The apparent variation in the number of such deaths is owing to the fact that deaths among the aged are almost indifferently ascribed by medical men either to senile decay or the intercurrent affections which hasten its progress.

Local Diseases.—The deaths in this schedule attained a total of 2140. This aggregate again, as was that of 1899, is the highest on record. The number for 1899 was 2055, and the numbers in the three immediately preceding years were respectively, 1868, 1758, and 1898. The occurrence of an outbreak of influenza during the year is undoubtedly the principal explanation of this high mortality.

Special diseases of the nervous system caused a total of 492 deaths, against 465, 456, and 479 respectively in the three preceding years. There were 65 deaths from simple meningitis, against 53 in 1899; 233 from apoplexy, as compared with 228; 48 from insanity and general paralysis of the insane, as compared with 36; 11 from epilepsy, as compared with 13; and 106 from infantile convulsions, as compared with 104. Diseases of the circulatory system were given as causing a total of 366 deaths, against 433 the year before, and an annual average of 325 for the three preceding years. There was an increase in the number of deaths attributed to heart disease, but this may possibly be due to want of uniformity in methods of classification. Diseases of the respiratory system were credited with 879 deaths, as compared with 804 in 1899, and 723, 695 and 742 in 1898, 1897, and 1896 respectively. Bronchitis, pneumonia and pleurisy were certified as causing 504, 343, and 9 deaths respectively, against 455, 311, and 11 in 1899.

Diseases of the digestive system were the ostensible cause of 206 deaths, against 152, 151, 196 and 188 in the four immediately preceding years respectively. The variations in the numbers of deaths assigned to each cause in this section are not sufficiently marked to justify any special inference.

Diseases of the urinary system were given as death-causes in 113 instances, against 118 in 1899, and 106, 103 and 93 in the three preceding years. The individual totals in this list again shew comparatively little variation from the average.

Diseases of the organs of generation (apart from the complication of parturition) gave rise to 21 deaths, 3 of males and 18 of females. Diseases connected with parturition occasioned 27 deaths, the same number, that is, as in 1899. The average number for the three immediately preceding years was also 27. The total number of deaths directly or indirectly due to child-birth, however, is much higher than this.

Violence.—The deaths attributed to violence numbered 154, as compared with 130 in 1899, and 140, 143, and 133 in 1898, 1897, and 1896 respectively. 123 were described as accidental, and 31 as suicidal. There were no certified homicidal deaths. The suicides numbered 29 in 1899, and averaged 26 during the three years ending with 1898.

Ill-defined and Uncertified Death Causes.

There were 245 cases of death scheduled under this heading during 1900, including at least 34 uncertified or illegally certified deaths. According to my estimate the uncertified deaths were 34 in number; the Registrar-General, however, gives them as 35. My number represents a percentage of 0·75 of all deaths, and that of the Registrar-General one of 0·77. The uncertified deaths in London amounted to 0·67% of all deaths, and in the 33 great towns taken together to 1·3, during 1900.

Inquest Cases.—Inquests were held by the City Coroner or his deputy during the year in 293 cases. This number is equal to 6·3% of the total number of deaths. The number of coroner's inquests during 1899 was 269, and in the three pre-

ceding years, 244, 285, and 283 respectively. The inquest cases in London were equal to 9·4‰, and in the 33 great towns taken together, to 7·6‰ of all deaths during 1900.

Chart of Meteorology, Births, and Deaths in Nottingham for 1900.

The usual Annual Chart, giving information as above, and prepared under the direction of the City Engineer and myself, will be found at the end of this Report.

THE CITY ISOLATION HOSPITAL, BAGTHORPE.

The total number of cases of all kinds admitted to the hospital during 1900 amounted to 785, as compared with 1,293, 762, and 519 in the three immediately preceding years respectively. Of the total cases, 679 were of scarlet fever, 66 of enteric fever, 15 of diphtheria, and 25 of other diseases. There were 82 cases remaining in hospital at the end of the year—66 of scarlet fever, 14 of enteric fever, 1 of diphtheria, and 1 of another disease.

Total Number of Cases in Hospital, 1900.

DISEASE.	Remaining at end of 1899.			Admitted during 1900.			Total cases during 1900.	Total deaths during 1900.	Case mortality of total cases, 1900.	Days of average residence.		Remaining at end of 1900.
		Recovered.	Died.		Recovered.	Died.				Non-fatal.	Fatal.	
Scarlatina... ..	M. 59	58	1	310	262	15						33
	F. 66	66	..	369	323	13						33
	Total	125	1	679	585	28	804	29	3·6	52·6	12·1	66
Enteric Fever	M. 10	10	..	36	22	6						8
	F. 13	13	..	30	20	4						6
	Total	23	..	66	42	10	89	10	11·2	49·6	10·2	14
Diphtheria ..	M. ...	..	..	5	3	1						1
	F. ...	..	..	10	8	2						..
	Total	..	..	15	11	3	15	3	20 0	40·3	4·66	1
Other Diseases	M. ..	..	..	6	1	5						..
	F. 1	1	..	19	16	1						1
	Total	1	..	25	17	6	26	6	23·8	26·0	21·1	1
TOTAL		149	1	785	655	47	934	48	5·13	51·6	14·1	82

Eleven patients sent in for Scarlatina proved not to have that complaint, and are classed under "other diseases."

If we add to the cases admitted during 1900 those remaining at the close of the previous year, we obtain the follow-

ing totals under each of the latter headings, representing the numbers of cases actually under treatment during the year:—Scarlet fever, 804; enteric fever, 89; diphtheria, 15; other diseases, 25.

In dealing however in detail with the vital and other statistics of the cases of each disease admitted during the year, later on in this section, it will be found that I have eliminated the cases remaining in hospital at the close of the year. Such cases are necessarily left over to be dealt with after their issue shall have been determined in the following year.

The following table gives the highest and lowest number of beds occupied during each month of the year. The highest number of all was 157, in January, and the lowest, 75, in December.

Table showing the number of Beds occupied during each month of the year.

MONTH.	BEDS OCCUPIED.		MONTH.	BEDS OCCUPIED.	
	Highest.	Lowest.		Highest.	Lowest.
January	157	130	July	130	112
February	156	127	August	123	109
March	128	107	September ..	115	96
April	126	98	October	121	88
May	146	126	November ..	88	78
June	149	116	December ..	91	75

SCARLET
FEVER.

Of the 1,394 reputed cases of scarlet fever notified, 690 or 49·5 % were removed to hospital. Of these last, 11 were found on admission not to be cases of scarlet fever, but as doubtless a considerable proportion of the home cases were also incorrectly certified, it is fair to infer that rather more than half of the known cases came into hospital. The percentage of known cases removed in the three immediately preceding years were respectively 47 %, 71 %, and 90 %. In addition, however, to the recognized and recognizable cases of scarlet fever, there remains, in all probability, an unknowable margin of cases with symptoms so mild and transient as altogether to escape recognition as examples of this disease.

With reference to the class of persons now admitted to the hospital, it is hardly necessary to remind you, that, in accordance with your recent decision, the cases taken in at the present time are almost without exception from poor houses, or institutions devoid of isolation accommodation.

There was a considerable increase alike in the actual and the relative numbers of return cases during 1900 as compared with 1899. The number of such cases which came to my knowledge was 24. Ten of these occurred in January and February, when the epidemic energy of the disease was yet well maintained, and 18 during the first six months of the year. There were no return cases in July, August, and September, and only 6 in the last three months of the year. The 24 return cases were equal to 3·2% of all. The percentage of such cases was only 1·5 in 1899—the lowest proportion on record.

The type of the return cases was somewhat more severe than during 1899, but did not approach the degree of severity commonly observed in such cases a few years back.

The cases of scarlet fever under treatment in the hospital during the year which ended either in recovery or in death before its close numbered 738. Of these cases, 336 were male and 402 female; 16 of the male and 13 of the female cases ended fatally. The deaths of males were equal to 4·7% of the male cases, and the female to 3·2% of the female. The total case-mortality was equal to 3·9%. The age and sex distribution of these cases is given in the accompanying table.

There was a single case only under 1 year, which ended fatally. Cases under 1 year are never numerous, and naturally very few of them are sent to hospital. The cases under 5 years were relatively somewhat more numerous than in 1899, but still much below the normal proportion—of 45%. The cases between 5 and 10 years were equal to 36% of all, against a usual proportion of 40%. The cases between 10 and 15 years were equal to 20% of all, a proportion almost 100% in excess of the normal. The cases between 15 and 25 years were also far more numerous than usual.

Age and Sex Distribution of Non-fatal and Fatal Cases of Undoubted Scarlet Fever under treatment in Hospital during 1900, exclusive of those remaining at the close of the year.

AGE PERIODS.	MALES.		FEMALES.	
	Recoveries.	Deaths.	Recoveries.	Deaths.
Under 1 year .. ..	..	1	..	..
Between 1 and 2 years	3	..	13	2
" 2 and 3 "	14	3	21	2
" 3 and 4 "	28	6	38	2
" 4 and 5 "	25	2	36	3
" 5 and 10 "	130	3	131	3
" 10 and 15 "	71	1	73	..
" 15 and 20 "	22	..	45	1
" 20 and 25 "	14	..	22	..
" 25 and 30 "	5	..	4	..
" 30 and 35 "	6	..	5	..
" 35 and 40 "	1	..	1	..
Over 40 years	1	..	..	..
TOTALS	320	16	389	13

Actual years of age at death in Fatal Cases.

MALE.					FEMALE.				
1 at 11 years.					1 at 17 years.				
1 " 7 "					1 " 8 "				
2 " 6 "					2 " 5 "				
2 " 4 "					3 " 4 "				
6 " 3 "					2 " 3 "				
3 " 2 "					2 " 2 "				
1 " 11 months.					2 " 1 "				
16					13				
Total cases .. ..	..	..	..	..	..	..	..	..	738
Total deaths .. ..	..	..	..	..	..	..	..	..	29
Total case mortality .. ..	..	..	..	..	..	..	..	..	3.9%
Male cases .. ..	..	..	..	..	..	..	..	..	336
Male deaths .. ..	..	..	..	..	..	..	..	..	16
Male case mortality .. ..	..	..	..	..	..	..	..	..	4.7%
Female cases .. ..	..	..	..	..	..	..	..	..	402
Female deaths .. ..	..	..	..	..	..	..	..	..	13
Female case mortality .. ..	..	..	..	..	..	..	..	..	3.2%
Cases of Scarlatina remaining in hospital at end of 1900 .. ..	..	..	..	..	..	..	..	..	66

The case death-rate, as already stated, was higher than in 1899, and this increase of fatality was most marked among the males, especially in the 2-3 years and 3-4 years age-periods, in each of which the mortality was equal to 21%. It may be noted that the case mortality from scarlet fever among males is usually higher than that among females. The 1-2 years age-period had the highest case death-rate among the females; the mortality was here equal to 15%.

The proportion of the ordinary complications was generally higher last year than during 1899, as the accompanying table will shew. To take a few examples:—Adenitis occurred in 7·6% of all cases, against 1·6% in the preceding year; otitis in 6·8%, against 5·9; nephritis in 4·6%, against 2·6; broncho-pneumonia in 2·2%, against 0·7; secondary sore throat in 1·7%, against 1·1; and second attack in 1·6%, against 0·7. The self-evident lesson to be learnt from this is the still existent liability of scarlet fever to comparatively sudden changes of type, as noted in the past by numerous observers from the days of Sydenham downwards.

Recorded Complications among Scarlatina Cases under treatment during 1900.

COMPLICATIONS.	Cases affected.	Percentage of all Cases.
Scarlatina Anginosa	63	7·83
" Maligna	2	·26
" Varicella	15	1·9
" Pertussis	2	·26
" Diphtheria	4	·49
" Otorrhœa	55	6·8
" Adenitis	60	7·59
" Rhinitis	57	7·1
" Nephritis	37	4·6
" Arthritis	19	2·3
" Broncho-pneumonia	18	2·2
" Secondary Sore Throat	14	1·7
" Second Attack ..	13	1·6
" Glandular Abscess..	14	1·7
" Mastoid " ..	2	·26
" Post Pharyngl. " ..	1	·12
" Ischio-rectal " ..	1	·12
" Cardiac Disease ..	8	·9
" Enteritis	2	·26
" Puerperal Mania ..	1	·12
" Mastitis	1	·12
" Cellulitis	3	·37
" Erysipelas	2	·26
" Onychia	3	·37
" Jaundice	2	·26
" Erythema nodosum	1	·12
" Uræmia	1	·12
" Ophthalmia	2	·26

You have now fully recognized the necessity of providing **ENTERIC FEVER.** further accommodation for city cases of enteric fever than that afforded by the General and Children's Hospitals. Both these institutions have only a small amount of space allotted to such cases, and admit from the county as well as the city.

One entire ward-block at Bagthorpe Hospital is now set apart when required for cases of enteric fever. The necessity for this accommodation is naturally most felt in the latter half of each year, but it will probably be found inexpedient to close the enteric wards altogether at any period of the year for some time to come at least, as it is quite impossible to foresee when cases may occur requiring hospital accommodation, and the General and Children's Hospitals cannot guarantee to be always prepared to receive them.

The total number of cases of enteric fever finally dealt with in Bagthorpe Hospital during the year was 75, but it should be noted that this does not include cases remaining in at the close of the year.

The cases admitted were all taken in between June and December inclusive, and in the following monthly numbers:—June, 4 cases; July, 2; August, 19; September, 12; October, 13; November, 8; December, 8.

The age incidence was as follows:—There was one female patient under 5 years, who recovered; there were nine patients between 5 and 10, six males and three females, all of whom recovered; there were fifteen between 10 and 15, 8 males and 7 females, and one female died; there were twelve between 15 and 20, 4 males and 8 females, and one female died; there were twelve between 20 and 25, 5 males and 7 females, and one female died; there were seven between 25 and 30, 5 males and 2 females, and one male died; there were eight between 30 and 35, 4 of each sex, and two of the males died; there were nine between 35 and 40, 4 males and 5 females, and two males and one female died; there were two over 40, both males, and one died. There were 38 male patients, 6 of whom died; the male case mortality therefore was equal to 15·9%. There were 37 female patients, four of whom died; the female case mortality therefore was equal to 10·8%. There were 75 cases of both sexes, and 10 deaths, giving a total case death-rate of 13·3%. The average general case death-rate in this country is approximately 18%—about 17% for males and 19 for females.

Age and Sex Distribution of Cases of Enteric Fever under treatment in Hospital during 1900, exclusive of those remaining at the close of the year.

				MALES.		FEMALES.	
				Recoveries.	Deaths.	Recoveries.	Deaths.
Under 5 years	..	..	..	..	..	1	..
Between 5 and 10 years	..	..	..	6	..	3	..
" 10 "	15	"	..	8	..	6	1
" 15 "	20	"	..	4	..	7	1
" 20 "	25	"	..	5	..	6	1
" 25 "	30	"	..	4	1	2	..
" 30 "	35	"	..	2	2	4	..
" 35 "	40	"	..	2	2	4	1
Over 40 years	..	..	..	1	1	..	..
TOTALS				32	6	33	4

MALES—Cases, 38 ; deaths, 6. Case mortality, 15·9%.

FEMALES—Cases, 37 ; deaths, 4. Case mortality, 10·8%.

Total cases, 75. Total deaths, 10. Total case mortality, 13·3%.

Remaining in Hospital at close of 1900, 14—8 males and 6 females.

In the 10 fatal cases, death was due to the following complications :—

- | | | | | | | | |
|----|-----------------------------|----|----|----|----|----|----------|
| 1. | Hæmorrhage, syncope | .. | .. | . | .. | .. | 1 case. |
| 2. | Pneumonia | .. | .. | .. | .. | .. | 3 cases. |
| 3. | Toxæmia | .. | .. | .. | .. | .. | 3 cases. |
| 4. | Cardiac failure and Toxæmia | .. | .. | .. | .. | .. | 1 case. |
| 5. | Perforation and Hæmorrhage | .. | .. | .. | .. | .. | 1 case. |
| 6. | Perforation | .. | .. | .. | .. | .. | 1 case. |

There were no cases of diphtheria left over from the previous **DIPHTHERIA.** year, but all the cases entered in the accompanying table were admitted and finally dealt with during 1900.

There were two patients of each sex between 4 and 5 years of age, and one of each died ; there were three males and five females between 5 and 10, and all recovered ; there was one female between 10 and 15, who died ; there were two females between 15 and 20, and both recovered.

There were five male patients in all, with one death, giving a case death-rate for males of 20°/ₒ. There were 10 females in all with two deaths, giving a female case death-rate also of 20°/ₒ. There were 15 cases altogether, and the general case mortality was likewise of course equal to 20%.

All the cases taken in were treated with antidiphtheritic serum on admission, and with the best results where they had not been long in progress.

Tracheotomy was performed upon three of the patients, and one, a male child of 4, brought to the hospital almost asphyxiated, ultimately recovered.

Age and Sex distribution of Cases of Diphtheria admitted during 1900.

AGES.	MALES.		FEMALES.		Monthly Admissions.	
	Recovered.	Died.	Recovered.	Died.		
Under 1 year .. ..	..	..	..	..	Jan.	3
Between 1 and 2 years	..	..	..	..	Feb.	2
" 2 and 3 "	..	..	..	..	March	2
" 3 and 4 "	..	..	..	..	May	2
" 4 and 5 "	1	1	1	1	June	2
" 5 and 10 "	3	..	5	..	Sept.	2
" 10 and 15 "	..	..	..	1	Oct.	1
" 15 and 20 "	..	..	2	..	Dec.	1
	4	1	8	2		15

One still remaining in.

MALES, 5 ; deaths, 1. Case mortality, 20%.

FEMALES, 10 ; deaths, 2. Case mortality, 20%.

Total cases, 15 ; deaths, 3. Case mortality, 20%.

There were three cases of mixed infection of Scarlet Fever and Diphtheria which are included in the above table.

In the three fatal cases, deaths were due to :—

- 1. Cardiac Paralysis.
- 2. Toxæmia and Hæmorrhage
- 3. Mixed infection (Scarlet Fever) with Toxæmia.

1900. Table showing monthly admissions of Cases of Scarlet Fever, Enteric Fever and Diphtheria, together with the monthly numbers of return cases of Scarlet Fever.

MONTHS.	CASES ADMITTED.			Return cases of Scarlatina.
	Scarlatina.	Enteric Fever.	Diphtheria.	
January	91	0	3	3
February	45	0	2	7
March	61	0	2	2
April	83	0	0	3
May	82	0	2	2
June	51	4	2	1
July	76	2	0	0
August	42	19	0	0
September ..	44	12	2	0
October	36	13	1	1
November ..	39	8	0	2
December ..	29	8	1	3
	679	66	15	24

Total number of Scarlet Fever cases discharged from hospital during the year, 738.

The following table contains particulars of cases, already referred to as of "other diseases," which were admitted upon erroneous notification certificates and otherwise during the year. **OTHER DISEASES.**

Table of Cases of "Other Diseases" admitted during 1900.

	Admissions, with Ages.		Recoveries.		Deaths.		Admitted for.
	Male.	Female.	Male.	Female.	Male.	Female.	
1	..	19 ^B	..	R	..	..	Suppurative bursitis.
2	3	..	..	..	D	..	Mixed infect'n—Measles & Scar. F.
3	..	23 ^B	..	R	..	..	Cervical Adenitis.
4	..	18 ^B	..	R	..	..	Follicular Tonsillitis.
5	..	19 ^B	..	R	..	..	Patellar Bursitis.
6	..	1	..	R	..	..	Not Scarlet Fever.
7	..	1	..	R	..	..	Not Scarlet Fever.
8	11	..	..	..	D	..	Pneumonia, not Scarlet Fever.
9	..	2	..	R	..	..
10	16	..	..	..	D	..	Tubercular Meningitis.
11	..	4	..	R	..	..	Furunculi.
12	..	18	..	R	..	..	Acute Phthisis.
13	3	..	R	..	..	..	Measles.
14	..	1	..	R	..	..	Measles.
15	4	..	..	..	D	..	Cancrum oris.
16	..	18	..	R	..	..	Not Scarlet Fever.
17	..	3	..	..	..	D	Varicella, Diphtheria, Scarlet Fever.
18	..	3	..	R	..	..	Varicella and Scarlet Fever.
19	30 ^B	..	..	..	D	..	Acute Rheumatism, Embolism.
20	..	22 ^B	..	R	..	..	Tonsillitis, with Purpura.
21	..	20 ^B	..	R	..	..	Not Scarlet Fever.
22	..	22 ^B	..	still in	..	..	Gastric Ulcer.
23	..	2	..	"	..	..	Not Scarlet Fever.
24	..	5	..	R	..	..	Not Scarlet Fever.
25	..	19	..	R	..	..	Not Scarlet Fever.
	6	19	1	16	5	1	
	25		17		6		

B.—Signifies one of the Staff of Bagthorpe Hospital.

R.—Signifies Recovered.

D.—Signifies Died.

The total expenditure on the hospital for the year ending March 31, 1901, according to the City Accountant, was £6506. Several causes contributed to raise the total cost of the hospital during 1900-1901 above the average amount for other years, prior to 1899, when the extent of the accommodation was similar to that of the past year, as distinguished from 1899 when the provision in this respect was altogether exceptional. The most prominent of these causes arose as follows:—(a.) The price of coal and gas underwent a large increase shortly after the estimates were made; (b.) owing to the inability of the General and Children's Hospitals to admit cases of enteric fever and diphtheria, it devolved upon Bagthorpe Hospital at an earlier period of the year than usual to make large and separate provision for cases of both these diseases; (c.) several considerable supplementary accounts for special work done and goods supplied in the previous year came in unexpectedly after its close (*e.g.*, the new boiler house and the railway siding had not been fully paid for); and (d.) the cost of living and the price of almost everything used in the hospital has gone up during the past 18 months.

The average cost per bed amounted to about £55 12s. 0d., and per patient (excluding the cost of those patients remaining in hospital at the close of the year) to £7 12s. 9d.

Dr. J. D. McCrindle, having obtained an appointment at Croydon, resigned the post of Resident Medical Officer at Bagthorpe Hospital in November. Dr. McCrindle had served the hospital for some two years, and during the busiest it has known since its establishment, with exceptional energy and ability. Dr. J. M. Gardiner, of Melbourne, was appointed at the close of the year to succeed him.

Miss Wallace continues to act as Matron at the hospital in a manner to secure your entire approval.

Handbills, Leaflets, &c. (*Distributed from the Health Department.*)—Leaflet literature, distributed from the Health Department, and relating to (a) the feeding and care of

infants, (*b*) the prevention of diarrhoea and cholera, (*c*) the prevention of tuberculous consumption, (*d*) the care of scarlet fever patients discharged from Fever Hospitals, and (*e*) the provisions of the Shop Hours Acts, will be found reprinted in the Appendix of this Report.

Municipal Laboratory of Bacteriology.—

Mr. S. R. Trotman, M.A., F.I.C., the City Analyst, has hitherto undertaken the public bacteriological work of the city, but you have now decided to appoint a medical bacteriologist and pathologist, and to equip a laboratory for his use. This appointment cannot fail to be of great service to the city, in assisting medical diagnosis, in supplementing chemical analyses of various kinds, and in aiding the investigation of the various causes conducing to the spread of disease.

Disinfecting Department.—After the rush of work during 1899, occasioned by the concurrent and unprecedented prevalence of scarlet fever and enteric fever with a large amount of measles, there was a comparative quiescence during 1900 in almost all sections of the work of cleansing and disinfection carried out by this department. The houses to be disinfected numbered little more than half the total of 1899, and the articles removed to the steam disinfecting apparatus were but 36,994 in 1900, against 53,805 in the preceding year. Still, with the exception of 1899 and 1895, the past year was the busiest on record in this department.

It is only during quite recent years that the medical profession and the public have come to recognize the desirability of disinfection for such diseases as enteric fever and consumption, but the demand for the assistance of the disinfecting officers in the case of these, and also of the minor infectious diseases, grows continually year by year, and increases at once the labour and the responsibility of those employed in the work.

I am pleased to state that the work of the department during the year, under the direction of Mr. F. G. Williams, has been carried out with efficiency and despatch.

Articles Disinfected at the Public Stations in Nottingham, 1886-1900.

	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Bedding ..	2411	4956	5250	5683	6020	5357	6735	8521	2943	10990	8822	4483	7550	22385	14582
Clothing ..	1316	3674	4827	5513	7577	4741	10253	11266	20579	12652	9012	4768	5554	14605	10517
Furniture & Hngngs. }	572	1091	799	757	585	401	439	726	1541	1277	2184	1382	2130	2722	2397
Miscells. Articles }	2147	6273	7565	10118	11548	8586	13319	10573	10303	13272	8394	8341	7699	14093	9498
TOTAL ..	6446	15994	18441	22071	25730	19085	30746	31086	35366	38191	28392	18974	22933	53805	36994

There is a growing demand from such places as Beeston and West Bridgford, outside the city (which have no disinfecting stations or apparatus of their own), for the disinfection of clothing, bedding, &c., at the City stations, and when this demand can be satisfied without interference with the regular function of the stations, such outside work is done at small fixed charges.

The Mortuaries.—The number of bodies received at the two public mortuaries, at the Eastcroft Depôt and Hyson Green respectively, was once more, as in 1899, the largest on record. 259 bodies were brought in altogether, against 216 in 1899. 132 (71 m. and 61 f.) were taken to Hyson Green, and 127 (81 m. and 46 f.) to the Eastcroft, as compared with 74 (39 m. and 35 f.) and 142 (86 m. and 56 f.) respectively the year before. The number of bodies of each sex taken to each of the mortuaries during each month of the year will be found in the accompanying table.

It has recently been decided to provide a mortuary for Bulwell by adapting a small brick building at the rear of the Police Station to the purpose, and when the new mortuary at the junction of London Road and Leen Side is completed the town will be fairly well equipped in this respect.

THE MORTUARIES.
Year ending December 31st, 1900.

MONTH.	EASTCROFT.			HYSON GREEN.		
	MALE BODIES.	FEMALE BODIES.	TOTAL.	MALE BODIES.	FEMALE BODIES.	TOTAL.
January	9	3	12	11	7	18
February	14	4	18	7	8	15
March	5	9	14	9	10	19
April	4	2	6	7	7	14
May	8	6	14	8	7	15
June	2	2	4	3	4	7
July	8	2	10	1	4	5
August	8	2	10	2	1	3
September	5	3	8	3	5	8
October	7	4	11	7	2	9
November	6	2	8	2	3	5
December	5	7	12	11	3	14
	81	46	127	71	61	132
TOTAL BODIES, 259.						

Common Lodging-Houses.—The houses on the register at the end of 1900 numbered 52, being six less than at the close of 1899. One new house was placed on the register, four old houses were voluntarily withdrawn from registration (by their keepers), and three others, in the neighbourhood of Millstone Lane, were demolished in connection with the St. Ann's Well Road Improvement Scheme. Five transfers were granted during the year.

The total existing accommodation, therefore, is somewhat less than in 1899; there is room for 1,025 lodgers, that is, at the present time, as compared with 1,080 in the former year. The present accommodation comprises 829 single and 98 double beds.

All the houses were lime-washed and cleansed throughout in April and October.

Legal proceedings were taken in two instances for breaches of the Acts and Regulations, and fines of 5/- and 10/- respectively were imposed.

The condition of these houses continues to improve every year. The improvement is certainly slow, but when we consider the class of people they accommodate we can hardly expect it to be otherwise. The bulk of the houses, indeed, cannot profitably be improved beyond the requirements of simple decency and cleanliness without some radical change in the tramp class which constitute the bulk of their lodgers.

The old lodging-house for women in Parliament Street was closed in July, and another house, or rather pair of houses thrown into one, in North Church Street, opened in place of it in December.

A new system of management has been adopted with the change of premises which allows of the separation of the lodgers into classes, and the women's lodging-house may probably look forward to a period of extended usefulness commencing in the near future as a result of this change.

The accompanying table gives the numbers of lodgers received in each of the Corporation lodging-houses during 1900 and other recent years.

Situation of lodging house.	No. of beds.	No. of Lodgers admitted in each of the years.									
		1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900
Millstone Lane...18 (Closed)		3,786	4,276	3,769	—	—	—	—	—	—	—
Popham Street...38 (Men only.)		6,442	7,708	7,273	7,813	7,492	7,331	6,568	6,608	6,792	7,96
Parliament St...20 Formerly, now North Church St. (Women only.)		4,720	5,110	5,387	5,555	5,663	6,252	6,374	6,422	7,053	*3,60
		14,948	17,094	16,429	13,368	13,155	13,583	12,942	13,030	13,845	11,56

* House closed July 14th to December 24th.

The house for women was closed for more than five months during the above-mentioned change of premises, hence the falling off in the number of female lodgers during 1900. The number of men taken in at Popham Street during the year was the largest on record,

Mr. G. A. Read, Assoc. San. Institute, the Inspector of Common Lodging-Houses, reports that he has paid in all 989 systematic visits to the houses during the year. There is certainly no department of the Sanitary Inspector's work in which constant supervision is more called for than in this.

I append tables giving the situation of the common lodging-houses and details of their accommodation.

Common Lodging Houses. Situation:—

In Narrow Marsh	..	..	..	..	..	..	42
" Millstone Lane	..	..	..	..	..	..	2
" Canal Street and Leen Side	..	..	..	..	..	..	3
" Main Street, Bulwell	..	..	..	..	..	..	2
" Portland Place, Coalpit Lane	..	..	..	..	..	..	1
" Water Street	..	..	..	..	..	..	1
" Washington Street	..	..	..	..	..	..	1
							—
							52

Common Lodging Houses. Accommodation Data, 1900.

For Males only.	For Males and Couples.	For Females and Couples.	Mixed Houses.	TOTAL.
19	17	1	15	52

	No. of Houses.	ACCOMMODATION.						Registered amount of bed accommodation for lodgers
		Less than 10 beds.	10 to 20.	21 to 30.	31 to 40.	41 to 50.	51 to 60.	
Houses on Register, 1899..	58	7	24	12	4	2	1	1,080
" registered during 1900	1	..	..	1	..	..	..	24
Registration surrendered and houses demolished ..	7	2	5	..	..	..	..	79
Houses on Register at end of 1900	52	..	..	..	..	..	..	1,025

Housing of the Working Classes Acts, 1890 and 1900. Insanitary Dwellings.—

Twenty-two houses, under 19 separate numbers, have been certified by me during 1900, under Sec. 30, Part II., of the 1890 Act, as unfit for human habitation. These houses were situated as follows:—

23, 24, 25, 26, 27, Knotted Alley, Red Lion Street
(Narrow Marsh).

20, 21, and 22, Silverwood Place, Bellar Gate.

1, 2, 3, 5, 7, and 8, St. Ann's Alley, St. Ann's Street.

3, Old Street, St. Ann's Street.

13, Warren Court, Old Street.

27, St. Michael's Street.

25, Martin's Yard, Red Lion Street (Narrow Marsh).

24, Martin's Yard, Red Lion Street (Narrow Marsh).

All have been either closed or partially reconstructed. The houses simply cleaned or repaired, under the P. H. Act, at the instance of the Health Department, are scheduled in the table on page 87 dealing with the work of the District Inspectors. We are often urged in the public press and elsewhere to utilize more fully than we do the powers which we possess under the Housing of the Working Classes Acts for dealing with insanitary houses individually, but it is certainly not of unmixed advantage to tinker with the radical unfitness of much of our slum property, under the P. H. Acts or the Housing of the Working Classes Act, 1890, Part II. A large part of such property can only be satisfactorily dealt with by entire demolition, and the only effective way of securing this is to proceed under Part I. of the Housing Act for the condemnation of areas covered by such houses, as distinguished from single dwellings dealt with under Part II. The result of much of our action in Nottingham, under Part II., in recent years, has been simply to give a new lease of life to hopelessly bad houses. Under the Amendment Act of 1900, local authorities can compulsorily acquire land outside their own boundaries for the erection of working-class dwellings, and in the exercise of the powers so granted probably lies the principal feasible solution of one of the knottiest problems of the day.

In certain dense urban districts, where it is specially important to make provision for populations displaced by improvement schemes in the more or less immediate neighbourhood of their old dwelling, it may be desirable and even necessary to erect large tenement blocks, such as those on the Boundary Street Area in London and elsewhere; but for the most part the former solution is by far the better in all respects, and, unless the distances to be traversed between the outside dwellings and the interior work places are very great, the arrangement of cheap tram and railway service is merely a matter of detail involving no serious difficulty.

The problem of the better housing of the poorer working classes, moreover, is not to be solved, as so many people seem to imagine, by the simple demolition of rookeries and the erection of good-class cottage property in their place. The excellent houses erected in Nottingham in recent years, under "re-housing schemes" for the details of which the Local Government Board is responsible, such as those on the old Garden Hospital site and on Coppice New Road, are quite useless as a provision for the very poor; their rents are between two and three times greater than the majority of our slum tenants can afford to pay.

The Local Government Board are not disposed to sanction the erection of houses suitable for the very poor, and private enterprise, or the automatic balance of supply and demand, cannot be trusted to fill the gap, because no one can afford to provide decent houses upon expensive urban land at rentals within the reach of the poorer working classes.

What we have to aim at then is (1) where possible, to transport our slum population from the inner parts of our towns where land is dear, to the outskirts where it is cheap, and to bridge the space between work and dwelling-place by cheap and rapid transit, and (2) where from the greatness of population or distances, or from other causes, this is impracticable, to put up blocks of tenements in more central situations.

Mr. Arthur Brown, the City Engineer, in a recent valuable report on this subject, has gone very carefully into the question

of the building of tenements within the town and the cost of so doing, but I regret to observe that he has not seen his way to deal with the other alternative I have named.

Canal Boats Acts, 1877-1884.—Mr. F. W. Franks, Assoc. San. Inst., the Chief Clerk of the Department, who acts as Canal Boats Inspector, reports that he has paid 68 visits to the canals and other navigable waters of the town during the year, and inspected 104 boats. All visits to boats have been paid during the statutory hours, and the inspector has been well received on every occasion. The number of boats on the Nottingham register at the end of the year was 139, six new boats having been added to it during the year. Three boats were re-registered on account of structural changes in their cabins. Two changes of ownership were duly notified and recorded on the register.

The women carried upon the boats inspected numbered 29, the children under 5 years of age 23, and those between 5 and 12 years 18. No case of infectious disease was discovered or reported upon any boat in Nottingham waters during the year, nor was it necessary to detain any boat for cleansing or disinfection.

Formal notices were served upon owners on three occasions for offences against the Acts and Regulations, the offences being respectively as follows :—

Failure to mark registration number on boat	...	1
Failure to renew paint when required	... ..	1
Overcrowding of cabin	... ..	1
		<hr/>
		3

The terms of each notice were promptly complied with without resort to legal proceedings.

Factory and Workshop Acts, 1878-91—The usual tables of the workshops in this city devoted to various industries, together with the approximate number of persons of each sex employed in each industry, and the number of visits paid to factories and workshops by Mr. Flint and Mrs. Exton, the local workshop inspectors, will be found at the end of this report. Further tables are also given of the items of work carried out at the instance of the inspectors during the year.

Under Sec. 4 of the Factory and Workshop Act of 1878, it is the duty of H.M. Inspector of Factories to send written notice to the local sanitary authority of "any act, neglect, or default in relation to any drain, water-closet, earth-closet, privy, ash-pit, water supply, nuisance, or other matter in a factory or workshop punishable or remediable under the law relating to public health," which may come to his notice. Notifications have been received from Mr. F. J. Parkes, H.M. Inspector for the district, in respect of 20 separate matters under this section during the year. All these have been duly inquired into and reported on by your inspectors, and in the majority of instances all necessary alterations have been secured without difficulty.

Under Sec. 3 of the Factory and Workshop Act of 1891, I am required to notify H.M. Inspector of any case of the employment of a child, young person, or woman in any workshop which may come to my knowledge. 105 such cases have come to my notice, in most instances through the instrumentality of Mr. Flint and Mrs. Exton, and all have been notified at once to Mr. Parkes.

Shop Hours Acts, 1892-95.—I have once more to report that no legal action has been taken during the year on account of offences against these Acts. It is well-nigh impossible to obtain convictions without the help of the persons for whose benefit the Acts came into force, and such help is naturally not often forthcoming. A copy of the official notice issued to individuals and firms employing young persons will be found as usual at the end of this report.

Seats for Shop Assistants Act, 1899.—This Act has been in force since January 1, 1900. It requires the provision, by all retail shopkeepers employing female assistants, of seats for the use of such persons in the proportion of one seat to every three assistants. It cannot be said that the requirements of the Act have been generally complied with up to the present, but the number of seats provided is growing continually, and I do not apprehend that any great difficulty will be experienced in the future, as a knowledge of the Act becomes more general, of securing compliance with its provisions.

Cleansing of Persons Act, 1897.—No steps have as yet been taken in Nottingham to put in force at all systematically the provisions of this Act, and it is somewhat difficult to see how they are to be profitably applied to the majority of cases requiring such help as they are designed to afford, unless we can subject the persons as well as the clothing of verminous individuals to a systematic and continuous course of treatment. Still, our steam disinfecting apparatus afford the means of dealing effectually with almost any amount of filthy clothing, and if the Poor Law authorities could see their way to co-operate with us in affording proper treatment for the persons of individuals to whom such clothing belongs, there should be no difficulty in making a commencement upon the lines laid down in the Act. It should be noted that the receipt of assistance from the Poor Law authorities does not in this case involve any loss of civil rights on the part of the recipient or his friends, because the Act specially states that Boards of Guardians may carry out its provisions and that no such forfeit shall be entailed.

Diseases of Animals Act, 1894. Orders, Regulations, &c., of the Board of Agriculture.—There were 24 reputed cases of swine-fever reported to the Board of Agriculture during the year, but one only of these was subsequently verified. The date of occurrence of the verified case was January 25th.

There were no reputed or verified cases of any of the other diseases notifiable by local authorities to the Board of Agriculture reported in Nottingham during 1900.

The Standing Regulations, practically inhibiting the introduction of swine into Nottingham, except for immediate slaughter, from all places outside the county of Notts., and altogether forbidding their exportation, remain in force in the city.

Lethal Chamber for Dogs, Cats, etc., at the Eastcroft.—The management of this apparatus is still in the hands of the Health Department, but all expenses are defrayed as heretofore by the Watch Committee.

The lethal agents employed are chloroform vapour and carbonic acid gas, which operate in an entirely satisfactory manner in producing painless and instantaneous death. The numbers of animals destroyed in this apparatus during the past three years have been as follows :—

			1898.		1899.		1900.
Dogs	...	...	422	...	472	...	731
Cats	...	...	64	...	108	...	180

Slaughter-Houses.—The number of slaughter-houses on the city register remains unchanged since 1899, at 158. Two transfers of tenancy have taken place during the year.

The subject of public abattoirs naturally calls for mention here, although already referred to on many former occasions. Much of the Meat Inspector's time and energy is necessarily thrown away in carrying on inspection in private slaughter-houses situated in various parts of the town, and it is quite impossible for him to exercise anything like so effectual a supervision with so wide a field to cover as he can when the slaughtering trade is localized to one spot.

As I have said before, there will be very little financial speculation involved in the erection of such abattoirs as we now recommend, viz., some 30 or 40 single slaughter-houses for cattle and sheep and a slaughter-hall for pigs, because this amount of accommodation is urgently required at the present time in Nottingham. We have received applications already from a large number of persons willing to become abattoir tenants at a reasonable rental.

Offensive Trades.—The 112th Section of the Public Health Act of 1875 forbids the establishment of certain scheduled offensive trades, and any other noxious or offensive trade, business, or manufacture of like character, in any urban district, without the consent of the local authority in writing.

Offensive trades may be termed some of the distinctly necessary evils of town life. No large town can get along without them : they are—many of them, at least—in a sense the economic

scavengers of the city, converting much of what would otherwise become unproductive refuse to a useful and harmless purpose. It is often said that such trades should be kept outside all populous places, but this is obviously impossible, in the case of large cities at least, if they are to fulfil the essential conditions of profitableness and accessibility.

There have been no applications for leave to establish any such trades in this city during the past year, and most of those already existent are now carried on with a fair regard to sanitary requirements. Complaints in respect of nuisances or alleged nuisances, arising from such trades in Nottingham, have been received by the Health Department only in connection with two establishments during the year.

Food Stuffs Condemned.—The amount of meat seized or surrendered during the year as unfit for human consumption was large beyond all precedent, and it is hardly necessary for me to say that Inspector Moore continues the performance of his onerous duties in a highly efficient manner.

The question whether compensation should or should not under any circumstances be paid to butchers and others for the confiscation and destruction of tuberculous animals and carcasses is still a vexed one—there is so much to be said on both sides; although, of course, the danger of admitting the principle of compensation for loss incurred in the ordinary course of business must be apparent to all, together with the wide field that would thus be opened—whatever the safeguards adopted—for the practice of fraud by unscrupulous persons. There can be no doubt, however, that the task of the Medical Officer of Health and Meat Inspector in checking the sale of tuberculous meat would be greatly simplified and facilitated if compensation were given. It must not be forgotten that the major part of the animals whose flesh we now confiscate, practically in accordance with criteria laid down in the Report of the Royal Commission on Tuberculosis and in the Memorandum of the Local Government Board dated March 10th, 1899, are well nourished and fat, shewing little outward sign during life of the disease within. And,

further, it must be borne in mind that generally valuable as tuberculin is as a test of the presence or absence of tubercle, it cannot invariably be relied upon even as a test to this extent, and can never be trusted to give such indication of the extent of the disease as will enable one to decide, before slaughter, whether any given animal will pass for food or be confiscated as unfit after it has been killed and cut up.

One thing is certain:—if compensation is given at all, it should be given under a Public General Act affecting the whole country; private legislation cannot satisfactorily deal with it.

MEAT.

	Imperial Stones.
Beef	2446
Viscera.. ..	522
Pork	425
Mutton.. ..	102
Veal	55
Hams	37
Sausages, &c. ..	8½

3595½

SHELL FISH.

	Imperial Stones.
Mussels	546
Whelks.. ..	154
Cockles.. ..	138
Oysters.. ..	136
Periwinkles ..	108
Crabs	34¼
Cray-fish	16
Lobsters	1½

1,133¾

VEGETABLES.

	Imperial Stones.
Potatoes	1452
Kidney Beans..	808
Turnips	416
Cucumbers	312
Broad Beans ..	196
Vegetable Marrows	112
Red Cabbage ..	104
Cauliflowers ..	48
Brussel Sprouts	16
Onions	4¾
Mushrooms	¼

3,469

WET FISH.

	Imperial Stones.
Mackerel	635½
Codling.. ..	363
Shrimps	352
Herrings	343½
Cod	200
Whiting	154½
Coal-fish	100½
Hake	94
Plaice	66
Bloaters	59¾

Imperial Stones.

Finneys	50
Sea Bream	32
Lemon Soles ..	31½
Haddock	27½
Cat-fish.. ..	25¼
Ling	25
Salmon.. ..	19½
Halibut	19¼
Dabs	19
Mixed fish	12½
Fish-roes	12
Witches	8½
Skate	6
John Dory	5¼
Smelts	3¾
Conger Eel	2¼
Kippers	2
Turbot	½

2,670½

FRUIT.

Imperial Stones.

Tomatoes	792¾
Pears	320¾
Plums	188½
Melons	116
Strawberries ..	100¾
Bananas	34¼
Lemons	14
Damsons	10½
Grapes	7
Bilberries	6
Gooseberries ..	3
Figs	2¾
Cherries	1
Black Currants ..	1

1,598¼

GAME, POULTRY, ETC.

Imperial Stones.

Rabbits	237
Turkeys	89¼
Chickens	74
Geese	15
Hares	5¾
Ducks	4¼
Pheasants	2

427¼

The amount of fish, game, poultry, fruit, vegetables, etc., seized or voluntarily surrendered during the year was also the largest on record. Inspector Billington has performed his duties in a most industrious and effective manner. Unfortunately there is no possibility of localizing his work, there being no central depôt like an abattoir to be looked for in the future in this department at which the greater portion of the material for inspection can be viewed before distribution.

The anomalous precedent of the famous Covent Garden Walnut Case still cripples a good deal of the inspector's preventive work, in allowing the wholesale vendor of fruit, vegetables and the like, to sell unwholesome material in bulk, provided only he publicly notifies that it is sold to be sorted.

Sale of Food and Drugs Acts, 1875-99.—Adulteration.—Two-hundred and seventy-one samples were taken for analysis during 1900, and 217 of these were returned by Mr. Trotman as technically pure.

A list of all samples taken, with the results of all analyses made, will be found in the accompanying table.

A tabular statement of the legal proceedings taken in connection with offences under these and other Acts will be found as usual under the heading of "Prosecutions."

Milk	No. of Samples.			No. Pure.			No. Deficient or Adulterated.	
	..	87	..	65	Deficient in Fat.	Added Water.
							1. 33%	2. 30%
							1. 26%	2. 18%
							1. 15%	1. 16%
							1. 12%	2. 14%
							6. 10%	1. 4%
							1. 8%	1. 3.5%
							2. 6%	—
							2. 5%	9
							2. 3%	

	No. of Samples.	No. Pure.								
Butter	..	42	..	41	..	..	..	..	1.	With Boric Acid. 16 grains per lb.
Margarine	..	13	..	13	..	..	..	..	..	All pure.
Lard	..	9	..	9	..	..	..	..	..	All pure.
Bread	..	2	..	2	..	..	..	..	..	All pure.
Coffee	..	16	..	15	..	..	..	..	..	With Chicory. 1. 75%
Cocoa	..	5	..	0	..	4.	50%	..	..	With Starch and Sugar. With Powdered Shell. 1.
Chocolate Cream	10	..	10	..	..	..	..	..	..	All pure.
Demerara Sugar	8	..	1	..	Seven samples consisted of white crystalline sugar colored with aniline dye.					
Granulated Sugar	1	..	1	..	..	..	..	..	..	Pure
Golden Syrup	10	..	8	..	..	..	..	..	..	With Glucose Syrup. 1. 75% 1. 64%
Honey	..	8	..	8	..	..	..	..	..	All pure.
Ice Cream	..	7	..	..	..	Adulteration or impurity insufficient to justify proceedings.				
Ale	..	9	..	9	..	..	..	..	..	All pure.
Scotch Whisky	3	..	3	..	..	..	..	..	..	All pure.
Irish Whisky	10	..	8	..	..	..	..	..	..	Below legal limit. 1. 5% 1. 3%
Rum	..	5	..	2	..	..	..	..	..	2 1. 20% 1. 16% 1. 4%
Vinegar	..	6	..	5	..	..	..	..	..	3 With coloured Acetic Acid. 1. 90%
Citric Acid	..	5	..	5	..	..	..	..	..	All pure.
Gregory's Powder	2	..	2	..	..	..	..	..	..	All pure.
Prescriptions containing Alcohol, Iodide of Potassium and Iodine.	3	..	2	..	..	..	..	..	1.	Deficient in Alcohol. Deficient in Iodine. 100% 65%
Laudanum	10	..	8	..	..	..	..	..	1.	Deficient in Proof Spirit. Deficient in Alcohol. 49% 3%

It will be noticed that the numbers of samples stated to be adulterated or deficient do not always coincide with the numbers of cases of adulteration. The explanation of this is, that a single sample is sometimes doubly (or more) defective.

It is impossible at present to exercise an effective legal supervision over the manufacture and sale of ice cream, and you have decided some time since to insert a clause in the draft of the next local Parliamentary Bill placing the manufacture and sale of all such material definitely under the control of the local authority.

The report of the Departmental Committee appointed to consider the whole question of the use of food preservatives is still awaited with much interest. Pending the decision of the Committee no proceedings have been taken by us in respect of the use of chemicals for the preservation of ostensibly fresh foods.

Great public interest and alarm has been excited by the discovery, especially in the North of England during the past few months, of considerable quantities of arsenic in materials (and especially in artificial glucose) used in the manufacture of beer.

Large quantities of arsenic were found in many cases, and much sickness and mortality (due chiefly to peripheral neuritis resulting from the ingestion of arsenic) were brought to light.

A Royal Commission has been appointed, and is now sitting, to inquire into the whole subject.

A large number of samples of beer and glucose were taken in this city, both with official formality and privately, and examined for arsenic, chiefly however with a negative result; but before the scare arose in Lancashire proceedings were successfully taken in Nottingham, in respect of glucose (containing small quantities of arsenic) used as an adulterant of golden syrup.

Dairies and Cowsheds.—The names of milk-sellers on the city register at the close of 1900 numbered 952, ten having been added during the year. This register, however, is much in need of revision.

The cowkeepers' register has remained unchanged since 1899. There are 161 names upon this. This register also requires revision.

Under the heading below of "District Inspectors and their work," I have explained the necessity for the appointment of a special inspector to exercise supervision over dairies, cowsheds, and milk-shops, and to superintend the collection of samples for analysis under the Sale of Food and Drugs Acts. I may also remind you that I have urged the necessity of appointing such an officer as this for some years past.

District Inspectors and their work.—

A table of the work carried out during the year at the instance of the district inspectors will be found on page 87 of this report. There was an increase in the number of items of work accomplished in each of the districts except the northern, but here there was a considerable reduction as compared with the previous year. The total amount of work done in all the districts taken together showed a considerable increase as compared with the record of 1899.

In a manufacturing town of the size and character of Nottingham, with a conservancy system of excrement disposal, there must necessarily be always plenty of work for four district inspectors to do in looking after the grosser ordinary nuisances; but when we consider that in Nottingham they have also to perform such diverse and important duties as (1) the taking of samples for analysis under the Sale of Food and Drugs Acts, (2) the supervision of milk-shops, and (3) the making of special inquiries and reports upon questions of scavenging and trade nuisances and minor infectious diseases, it becomes at once apparent, that, however capable and industrious the inspectors may be, all their duties cannot possibly be properly performed. I am aware that the present is an unfortunate time for suggesting an increase of appointments and expenditure; but on the other hand I have insisted upon the necessity for further inspecting officers for some years past, and the growth of population revealed by the recent census returns affords an additional argument in favour of such a change. I would recommend at the present time that an inspector be appointed to take charge of the work of collecting samples for analysis under the Sale of Food and Drugs Acts, and also to exercise supervision over dairies, cow-sheds, and milk-shops, and, further, that two lady health visitors be engaged, whose primary duty would consist in visiting the poor in their houses and giving simple advice, both by word of mouth and by printed leaflets, with regard to infant feeding, the nursing of the sick, and general domestic management.

I am already furnished regularly by the school authorities throughout the city with notifications of cases of minor infectious

and other diseases for which children are excluded from school, and such lady visitors as I have in my mind could utilize the receipt of these notifications as occasion for visiting the homes in the first instance. If we may judge by the experience of other places—and I have seen a good deal of this work elsewhere—they would meet with no serious difficulty when once fairly started, and the poor generally would greatly appreciate their services.

Disposal of Refuse. Refuse Destructors.

—I have already, in this and other reports, alluded to some of the evils attendant upon the retrograde practice of accumulating masses of offensive refuse at the sanitary depôts within the city, and it is unnecessary here to carry the argument against the practice further. I shall only insist upon the necessity, on grounds of health and decency, of securing isolated tips outside the town for all such refuse that cannot be either burnt at once or disposed of as manure. Until the projected new Destructors (at the Eastcroft and Radford or Bulwell) are completed and in working order, it will be necessary to send away the greater part of the town refuse. I should recommend that the recent night-soil and other offensive material, which cannot be immediately sold as manure, should be sent to some spot at a distance from the city and other inhabited places but near one of the canals and railways, and that part should here be disposed of to farmers and part spread upon the land as filling or manure.

The existent half-spent refuse at the Eastcroft and Radford wharves might, I think, advantageously be sent out to serve as filling for some out-of-the-way depressed land somewhat nearer to the city. This material should also be spread in a thin layer on the land, and the deposit turfed over as it is spread.

The Leen.—The bed of the Leen river within the city boundaries has at length been cleaned out, and one can only regret that it is impracticable to effect a radical cure of the Leen nuisance, either by stopping the sources of pollution or by recognizing the stream for an open sewer—as it actually is—and culverting it throughout, instead of simply tinkering with the evil by removing deposits after they have formed.

Notices.—The notices issued from the Health Department during the year have been as follows:—

Statutory	...	...	190
Ordinary	...	...	1078

There is a slight falling off in the number of these notices issued during 1900 as compared with the year before, but the actual amount of work accomplished, as already shewn, has been greater. It must be remembered that a large number of informal notices by letter and by word of mouth are not included in the above list.

Prosecutions—The cases in which proceedings were taken during 1900, with the results in each case, are set out in detail in the table which I give below. The list is much longer, but the results were not quite so uniformly successful as in 1899. The failure or partial failure of the prosecution, however, when it occurred, was for the most part due to some more or less accidental cause not reflecting upon the merits of the proceedings.

Offence.						Result.
Sale of Milk deficient in Fat	24%	..	..	..	Fine of £1	0s.
"	"	24%	..	..	..	Withdrawn on production of warranty.
"	"	16%	..	..	..	Fine of £2 0s.
"	"	15%	..	..	..	Fine of 10s.
"	"	13%	..	..	..	Fine of 10s.
"	"	10%	..	..	..	Dismissed on account of delay.
"	"	10%	..	..	..	Withdrawn, bottle containing third part of sample having burst.
"	"	10%	..	..	..	Dismissed on account of previous sample being genuine.
"	"	10%	..	..	..	Withdrawn, Magistrates' Clerk having omitted to serve copy of certificate with summons.
"	"	10%	..	..	..	Fine of £1 0s.
"	"	10%	..	..	..	Dismissed on account of mass of evidence for defence, but proceedings approved by Bench.

Offence.	Result.
Sale of Milk containing 16% added water	Fine of £1 0s.
" Cocoa containing 30% sugar, and 30% Starch	Defendant allowed to pay 10s. into Poor Box.
" " containing 27% sugar, and 28% starch	Ditto.
" " containing 25% sugar, and 35% starch	Fine of £2 0s.
" Golden Syrup, containing 75% glucose syrup	Fine of 10s.
" " " " 64% " "	Warranty produced, but proceedings approved by Bench.
" Rum, deficient in proof spirit 20%	Fine of 10s.
" " " " 16%	Fine of £1 0s.
" Vinegar, containing 90% dilute acetic acid ..	Fine of £1 0s.
" Tincture of opium, deficient in proof spirit 49%	Dismissed on ground that Analyst had stated deficiency in terms not authorized by pharmacopœia.
" Liquor iodi fortis, deficient in alcohol 100% and iodine 65%	Withdrawn on payment of 10s. to Poor Box.
Obstructing Inspector in discharge of duty under Sale of Food and Drugs Act, 1899	Fine of £1 0s.

PUBLIC HEALTH AND OTHER ACTS.

Offence.	Result.
Exposure of unsound meat for sale	Fine of £5 0s.
" " " "	Fine of £1 0s.
" " " "	Dismissed.
Deposit of " " "	Fine of £1 0s. and costs
" " fish "	Fine of £2 0s.
Exposure " " "	Fine of £2 0s.
Deposit " rabbits "	Fine of £5 0s.
Exposure " fruit "	Fine of £1 0s.
" " " "	Fine of 10s. and costs.
" " " "	Fine of 10s. 6d.
Failure to cleanse slaughter-house in accordance with regulations	Fine of £1 1s.
Failure to cleanse Common Lodging-house in accordance with regulations	Fine of 10s.
Ditto ditto ditto	Fine of 5s.
Keeping of animals on domestic premises in such a manner as to be a nuisance.	Order for abatement of nuisance and for payment of costs, 5s.

Abatement of Nuisances, 1900.

Description of Work Done.	Inspector Ward, Assoc. San. In.	Inspector Old.	Inspector Byrns.	Inspector Betts.	TOTAL.
Houses repaired	11	..	3	23	37
Houses cleansed	6	..	4	..	10
Houses, overcrowding of, abated ..	..	6	2	2	10
Bath wastes disconnected ..	1	..	5	1	7
" trapped .. ..	..	3	4	7	14
Sink wastes disconnected ..	3	..	22	21	46
" trapped	4	..	1	3	8
Drains repaired and cleansed ..	208	112	287	240	847
Drains trapped	23	20	51	33	127
Water closets repaired	52	2	65	64	183
Pail closets repaired	196	94	170	166	626
" provided .. ..	..	2	1	..	3
Waste water closets provided ..	7	12	20	58	97
Ashpits abolished	20	4	7	30	61
Privies abolished	17	9	4	42	72
Water closets provided in lieu of privies and pail closets	22	3	5	5	35
Soft water cisterns cleansed	9	2	7	13	31
Courts and yards paved	72	71	50	99	292
Piggeries abolished	8	22	1	6	37
Stables, &c., drained	3	3	2	1	9
Urinals repaired, &c.	11	2	5	14	32
Manure pits repaired, &c.	3	1	7	5	16
Offensive accumulations removed ..	23	26	40	17	106
Miscellaneous	208	39	125	91	463
Total	907	433	888	941	3169

(b) Workshops.

INSPECTOR FLINT. (MALE).

Work done.

Workshops and bakehouses limewashed	320
Workshops and bakehouses repaired	7
Offensive refuse removed	27
Overcrowding abated in workshops	2
Additional ventilation provided in workshops	6
Defective drains repaired	2
Additional means of escape in case of fire	1
Objectionable drains removed from bakehouses	2
Offensive animals removed from premises	4
New W.C.'s erected	14
Separate W.C. accommodation provided	8
Pail and W.C.'s repaired and cleansed	22
Objectionable outhouse removed	1
Insanitary bakehouse condemned and closed	1

INSPECTOR EXTON. (FEMALE).

Work done.

Workrooms limewashed	148
Staircases limewashed	6
Staircases painted	2
Fire escapes fixed	4
Overcrowding abated in workrooms	6
Additional exits provided	2
Stairs, floor and ceiling repaired	11
Pail Closets and W.C.'s repaired and altered.. .. .	12
New W.C.'s provided	19
Re-arrangement of W.C.'s	5

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Inspection of Workshops in which Males are employed.

Branch of Trade.	Number of Workshops.	Number of Employees.	Number of Visits.
Aerated Water Manufacturers ..	15	207	24
Bakers and Confectioners ..	244	510	1379
Bamboo Furniture Makers ..	3	11	16
Basket Makers and Wicker Workers	29	383	61
Baking Powder Maker ..	1	5	1
Beer Bottlers	6	99	8
Bicycle Makers	8	22	11
Blacksmiths	43	138	65
Box Makers	7	100	15
Boat Builder	1	5	1
Boot and Shoe Makers ..	50	137	64
Brewers	5	40	6
Brass Founders	4	18	4
Brass Worker	1	6	1
Brick Makers	4	245	5
Brush Makers	6	26	6
Boiler Fluid Maker	1	5	7
Cabinet Makers	28	217	50
Card Punchers	3	11	5
Carvers and Gilders	2	8	2
Chair Makers	2	8	2
Chemists (Manufacturing) ..	3	16	5
Clog Maker	1	6	2
Coach Builders and Wheelwrights	32	166	40
Confectioners and Sugar Boilers	13	140	24
Coopers	5	35	9
Copper Smith	1	4	1
Corn and Seed Merchant ..	1	40	1

Trade.	Number of Workshops.		Number of Employees.		Number of Visits.	
Cricket Outfitters	2	..	29	..	2	
Dropper and Box Maker	1	..	5	..	2	
Drysalter, Wholesale	1	..	10	..	1	
Engravers	3	..	5	..	3	
Engineers and Machinists	7	..	58	..	10	
Enameller	1	..	11	..	1	
Fellmonger	1	..	12	..	4	
Embossers	1	..	2	..	1	
Firewood Merchants	9	..	23	..	12	
Framesmiths	2	..	11	..	2	
Framework Knitters	13	..	123	..	18	
Furniture Painters and Polishers	7	..	32	..	9	
General Smiths	11	..	32	..	12	
Gut Cleaners	12	..	43	..	50	
Glass Stainer	1	..	14	..	1	
Hatter	1	..	1	..	1	
Hosiery Manufacturers	4	..	139	..	10	
Hosiery Trimmers	3	..	22	..	8	
Ice Cream Makers	7	..	28	..	83	
Iron Founders	3	..	33	..	3	
Joiners and Builders	102	..	427	..	146	
Lace Designers	8	..	54	..	9	
Lace Manufacturers	14	..	170	..	14	
Lath Renders	2	..	4	..	2	
Launderers	5	..	43	..	3	
Leather Dressers	4	..	31	..	5	
Laundry Paste Makers	2	..	9	..	3	
Maltsters	6	..	21	..	6	
Marine Store Keepers & Waste Merchants	16	..	90	..	23	
Mattress Makers	5	..	17	..	5	
Needle Makers	7	..	34	..	9	
Optician	1	..	4	..	1	
Organ Builder	1	..	6	..	1	
Packing Case Makers	5	..	30	..	21	
Painters and Decorators	5	..	32	..	5	
Patent Medicine Maker	1	..	13	..	1	
Paper Rulers	3	..	18	..	3	
Perambucot Makers	6	..	31	..	10	
Picture Frame Makers	4	..	38	..	6	
Pipe Clay and Pipe Makers	3	..	10	..	5	
Plated Measure Makers	2	..	5	..	6	
Plumbers	26	..	111	..	28	
Provision Curer	1	..	4	..	4	
Rope and Twine Maker	1	..	4	..	1	
Sack and Cover Makers	2	..	8	..	2	

Trade.	Number of Workshops.		Number of Employees.		Number of Visits.
Saddlers	17	89	26		
Sauce Manufacturer	1	3	2		
Scale Makers	2	4	2		
Skin Curer	1	3	1		
Sculptors	10	38	14		
Setter-up of Lace Machines	1	3	1		
Silk Hosiery Makers	4	25	13		
Sinker Makers	4	18	4		
Size and Glue Makers.. ..	2	44	8		
Soap Makers	2	34	2		
Steel Bar Maker	1	4	1		
Stonemasons	9	106	9		
Surgical Hosiery Makers	6	47	9		
Surgical Appliance Maker	1	3	2		
Tailors	80	523	161		
Tallow Chandlers	2	10	2		
Ticket Writers	2	6	2		
Tin Plate Workers	21	80	39		
Undertakers	6	23	9		
Upholsterers	11	60	12		
Venetian Blind Makers	5	11	7		
Watch Maker	1	4	1		
Warper	1	2	1		
Wheel Maker	1	4	1		
Whip Makers	5	28	11		
Whitesmiths	7	22	7		
Wood Carvers	3	9	4		
	<u>1047</u>	<u>5688</u>	<u>2718</u>		

Visits to Factories, etc. (in accordance with provisions of P.H. and
P.H.A.A. Acts, and Factory and Workshop Acts). 150

Inspection of Workshops in which Females are employed.

Trade.	Number of Workshops.		Number of Employees.		Number of Visits.
Blind Maker	2	4	4		
Box Makers	19	338	70		
Boot and Shoe Makers	3	13	4		
Confectioner	1	3	1		
Corset Maker	1	2	1		
Curtain Dressers	2	4	4		
Cricket Outfitter	1	2	1		
Cap and Cap-shape Makers	2	21	6		
Cigar Box Maker	1	34	1		
Cycle Repair Outfitter	1	2	2		
Curtain Manufaturers.. ..	2	39			

Trade.	Number of Workshops.		Number of Employees.		Number of Visits.	
Dressmakers	208	1096	353			
Furrier	1	1	1			
Gilder	1	18	1			
Hosiery Manufacturers ..	20	709	38			
Hosiery Trimmer ..	1	4	1			
Hair Net Manufacturer ..	1	13	1			
Lace Menders	22	277	47			
Laundresses	16	68	43			
Lace Clippers & Chenille Spotters	41	615	127			
Lace Manufacturers	182	2929	508			
Marine Store Keepers..	10	76	19			
Makers-up of Hosiery ..	18	86	32			
Milliners	63	153	77			
Maker-up of Underclothing	1	3	2			
Maker of Baking Powder ..	1	5	1			
Manufacturing Chemists ..	2	4	2			
Paper Bag Maker	1	6	2			
Perambucot Maker	1	3	1			
Photographer	1	3	1			
Packers of Tea, etc. ..	3	12	4			
Shirt Makers	6	39	11			
Starch Maker	1	2	1			
Surgical Appliance Makers ..	4	114	6			
Sun Bonnet, Mob Cap, and Apron Manufacturers	9	100	14			
Sugar Boilers	8	59	12			
Straw Board Liner	1	3	2			
Tailors	67	389	190			
Upholsterers	8	99	14			
Viyella Manufacturer	1	12	1			
	734	7360	1609			

Visits to Factories, etc., in accordance with provisions of P.H. and
P.H.A.A. Acts, and Factory and Workshop Acts. 287

Bakehouses in Nottingham, 1900.

Bakehouses in use	240
" underground	80
" partly underground ..	19
Underground Bakehouses approached from interior of premises only	38
" " " from outside only	30
" " with entrance from both inside and outside	12

The largest Bakehouse is above ground, and contains a space of 26,000 cubic feet.
The average height of this Bakehouse exceeds 11 ft., and it is efficiently
ventilated at the highest points of the walls.

The smallest Bakehouse contains a space of 450 cubic feet.

The greatest number of men working in any one Bakehouse is 25.

The minimum height of any Bakehouse from floor to ceiling is 6 ft. 8 in.

APPENDIX.

The following statistics are furnished by Mr. T. R. SWAINE,
the Manager of the Sanitary Depôts:—

COLLECTION AND DISPOSAL OF REFUSE.

Number of Pails Collected, 18 Years ending
31st December, 1900.

YEAR.	NOTTM.	BASFORD AND BULWELL.	RADFORD AND LENTON.	TOTAL.	WEEKLY AVERAGE.
1883	1,309,917	407,820	254,667	1,972,404	37,930
1884	1,431,399	480,443	329,057	2,240,899	43,094
1885	1,473,833	513,822	365,211	2,352,866	45,247
1886	1,505,784	541,086	375,270	2,422,140	46,579
1887	1,555,937	535,950	423,885	2,515,772	48,380
1888	1,514,633	532,730	417,186	2,464,549	47,395
1889	1,482,102	535,206	418,806	2,436,114	46,848
1890	1,485,880	547,659	425,586	2,495,125	47,290
1891	1,503,674	560,127	432,324	2,496,125	48,002
1892	1,523,965	580,061	446,687	2,550,713	49,052
1893	1,525,804	587,718	443,960	2,557,482	49,182
1894	1,559,608	605,349	445,606	2,610,563	50,203
1895	1,594,130	631,219	432,450	2,657,799	51,111
1896	1,598,814	636,951	441,126	2,676,891	51,478
1897	1,568,172	636,744	444,859	2,649,775	50,957
1898	1,542,856	638,493	468,070	2,649,419	50,950
1899	1,529,546	637,420	478,475	2,645,441	50,874
1900	1,522,549	640,976	475,195	2,638,720	50,745

Pails in use	-	-	-	-	-	-	37,984
Ashpits cleared (exclusive of Basford and Bulwell)	-	-	-	-	-	-	3,363
Dry-Ash-Tubs in use	-	-	-	-	-	-	8,256
Dry-Ash-Covers in use	-	-	-	-	-	-	1,738
Dry-Ash-Pans in use	-	-	-	-	-	-	78
Dry-Ash-Pan-Covers in use	-	-	-	-	-	-	49

Number of Loads Collected.

	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
NOTTINGHAM.—Pail Closets ..	72,125	70,576	70,756	71,603	72,570	72,657	74,267	75,911	76,134	74,675	73,469	72,835	72,502
Night Ashpits ..	3,408	3,056	2,775	2,939	2,896	2,418	2,287	2,460	2,278	2,391	2,406	2,263	2,372
Dry Ashpits and Dry Ash Tubs ..	7,495	7,588	7,170	7,199	7,463	8,301	8,378	8,820	9,518	10,230	11,851	13,275	14,055
Slaughter House ..	867	884	907	975	973	969	975	975	1,037	1,021	1,034	1,023	1,058
Pot Cart ..	485	483	499	849	916	1,229	1,286	1,348	1,379	1,390	1,360	1,371	1,817
BASFORD AND BULWELL.—													
Pail Closets ..	25,368	25,485	26,079	26,672	27,622	27,986	28,826	30,058	30,331	30,321	30,404	30,353	30,522
RADFORD & } Pail Closets ..	19,866	19,943	20,266	20,587	21,271	21,141	21,219	20,593	21,006	21,183	22,289	22,784	22,628
LENTON } Night Ashpits ..	2,206	2,238	2,163	2,182	2,047	1,973	1,967	1,951	2,666	2,844	3,276	2,779	2,083
Totals ..	131,820	130,253	130,615	133,006	135,758	136,674	139,205	142,116	144,349	144,055	146,089	146,683	147,037
WEEKLY AVERAGES ..	2,535	2,504	2,511	2,557	2,610	2,629	2,677	2,733	2,775	2,770	2,809	2,821	2,828

Disposal of Refuse.

	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Number of Wagons sent out ..	4,940	4,994	4,999	4,342	3,669	3,510	4,481	4,085	4,109	3,134	3,091	3,595	3,145	1,984
Average Weight of Night-soil per Truck ..	T. c. q. 7 19·2	T. c. q. 7·17·2	T. c. 7·16	T. c. 7·16	T. c. 8·0	T. c. q. 8·1·1	T. c. q. lbs. 7·17·3·20	T. c. q. lbs. 7·19·0·18	T. c. q. lbs. 7·17·1·17	T. c. q. lbs. 7·18·1·12	T. c. q. lbs. 7·19·2·19	T. c. q. lbs. 7·19·0·25	T. c. q. lbs. 8·1·2·9	T. c. 8·0
Number of Boats sent out ..	371	350	293	278	247	547	320	415	359	574	514	479	592	734
Average Weight of Night-soil per Boat ..	T. c. 35·10	T. c. q. 38·11·2	T. c. q. 37·10·3	T. c. q. 36·13·1	T. c. q. 35·0·2	T. c. q. 34·10·3	T. c. q. lbs. 32·10·3·21	T. c. q. lbs. 32·6·2·9	T. c. q. lbs. 32·9·3·23	T. c. q. lbs. 32·10·0·3	T. c. q. lbs. 32·17·0·6	T. c. q. lbs. 33·6·0·15	T. c. q. lbs. 33·2·2·13	T. c. q. lbs. 31·10·1·6

HANDBILLS AND LEAFLETS.

City of Nottingham.

The Feeding and Care of Infants.

- 1.—The natural and best food for a young infant is its mother's milk.
- 2.—The child should be suckled once every two hours during the day, and once every four hours during the night, until it is about three months old, and at gradually lengthening intervals after the lapse of this period.
- 3.—The child should, if possible, receive no other food than its mother's milk until it is at least 6 or 7 months old.
- 4.—During the suckling period the mother should take plenty of good, plain, nourishing food, but should avoid alcoholic stimulants and spices.
- 5.—The mother should wash her nipples after each time of suckling. If they become sore she should apply some glycerine or lanoline to them, and, if necessary, use a nipple-shield carefully cleaned with soap and warm water after each time of using.

The following instructions may be advantageously followed, at the earlier ages in cases where the mother is unable to suckle her infant, and at the later ages in all cases:—

(a) During the first six weeks after birth the child should be fed every two hours throughout the day, reckoned between 4 a.m. and 10 p.m., and once again between these hours in the night. Its food should consist of one part of fresh, pure cow's milk, and two parts of water, mixed and boiled, and, after boiling, sweetened with a small teaspoonful of brown sugar to each pint (of the mixture.) Barley water may sometimes with advantage be used instead of plain water, but lime water is better avoided. The mixture should be kept in a clean covered vessel, and in a clean cool place, between meals. The temperature of the food given to a young child should be 95 degrees Fahrenheit, *i.e.*, about the heat of the human hand. One-and-a-half ounces (three tablespoonfuls) to two ounces (four tablespoonfuls) should be given to a child each time it is fed.

Two bottles should always be used, each alternately; one being scalded and rinsed, and afterwards left to soak, while the other is in actual use. The bottles should have no tube or neck, but have a mouth large enough to admit the first finger, and this should be fitted with an india-rubber teat only. The teats should be washed inside and out, after each time of using, with soap and warm water.

(b) From six weeks to three months old the child should be fed with a mixture of equal quantities of cow's milk and water, with sugar as above; but two teaspoonfuls of cream may now be advantageously added to each meal. The quantity given at each meal should be about four ounces (eight table-spoonfuls). The interval between meals should now be gradually but continually lengthened.

(c) From three months to seven months old the child should have a mixture of two parts of cow's milk to one of water. About four ounces (eight tablespoonfuls) should at first be given at each meal, but, the intervals between meals being still lengthened, a larger quantity than this will soon be required for each meal. The quantity of cream given with each meal may now be increased from 2 to 3 or 4 teaspoonfuls.

The following is a useful working rule for the feeding of a child, with such substitutes for mother's milk as mentioned above, during the period in which liquids should be exclusively used:—

Begin with about 16 oz. a day of 24 hours, as under (a). Increase this by the addition of 1 oz. to 2 oz. a week up to the end of the first month. After the first month add 4 oz. a month up to the end of the seventh month. At this period, unless the child is regularly to have some quantity of the farinaceous food mentioned in the next paragraph, its milk should amount to at least 40 oz. a day. At 9 months a milk-fed child should have three pints in the 24 hours.

(d) From seven months to 12 months old the child should be given five meals in a day of 24 hours. The number of meals will thus have been reduced by a little more than one-half (from 11 to 5) in the first seven months. Each meal should consist at the first of about 5 or six ounces (10 or 12 tablespoonfuls) of undiluted cow's milk, with cream as under (c); but three of the meals may also each contain about a teaspoonful or more of some whole-meal farinaceous food, well boiled and stirred up with the milk. All the meals in this period should be given between 6 or 7 a.m. and 9 or 10 p.m.

(e) From 12 months to 18 months old the child should again be fed only during the day, and at about the same intervals (on five occasions) between early morning and night. The amount of milk should be about twice as great as given under (d), and porridge, bread and milk, bread and gravy, bread and butter, and a lightly boiled egg occasionally, may with advantage be given with, or in place of the milk as time goes on. It must not be forgotten, however, that pure fresh cow's milk, well boiled, is an excellent and sustaining food as well as a palatable drink for human beings at all ages.

The quantities of food given above are those generally suitable, but the capacity of children for food varies much, and signs of indigestion due to over-feeding should not be overlooked because a comparatively moderate amount of food is being taken.

It is unwise for a mother to undertake the medical treatment of her child, except, perhaps, to the extent of giving it a little opening medicine occasionally. She should never give it sleeping or quieting medicine except under medical advice.

A young child should not on any account sleep in the same bed with nurse or parents.

A young child should be warmly but loosely clothed over the whole of its body and limbs, and as few pins as possible should be used in dressing it.

It should be remembered that a young child is exceedingly liable to suck or to swallow anything within its reach which admits of being so treated.

It should also be borne in mind that a young child has no dread of fire or hot things unless or until it is actually burnt.

PHILIP BOOBYER, M.B.,

Medical Officer of Health, Nottingham.

City of Nottingham. Prevention of Diarrhœa and Cholera.

These diseases may in great measure be avoided by the exercise of common care. Cleanliness of person and surroundings and a judicious diet are the best possible safeguards against them. Their germs enter the system through contaminated air, water, and food; it is most important, therefore, to secure the utmost possible purity of these three vital agents.

All parts of a house should be freely ventilated both by day and night:—there is as a rule much less harm to be apprehended from too much than too little fresh air, whatever its temperature or degree of moisture. No decomposing refuse should be allowed to remain in the house or its neighbourhood; all vegetable refuse should be burnt in the kitchen fire. The floors of all rooms, passages, and stairways should be frequently washed with soap and water, and all private courts, alleys, and yards should be flushed with fresh water as often as possible. All dirty walls should be scraped and limewashed. All drains in the neighbourhood of the house should be flushed at short intervals, and all obstructions to the drainage and faults in the drains, which cannot be dealt with by the tenant, should be reported at once to the **Health Department in the Guildhall**. It is most important that all house drains should be completely disconnected from the sewers. All other offensive nuisances which are not receiving the necessary attention should also be at once reported.

The Public Water supply of the town is now happily above the suspicion of contamination, but no water even from this source should be allowed to stand before being used for drinking purposes, and all water from private wells or other like sources should invariably be boiled before use.

Only sound and fresh flesh of any kind should be used as food, and this should be well cooked. The same remark applies to cooking vegetables of every description. Unripe or over-ripe fruit should be rigorously avoided. Infants under nine months of age should receive nothing but milk, or milk and water, well boiled, when the milk is from any other source than the mother's breast. All food utensils, and especially milk vessels and babies' feeding bottles, should be well washed and soaked before use, in clean, and, if possible, boiling water.

A qualified medical man should be at once called in to every case of severe bowel disturbance. It is a wise precaution to disinfect with strong solution of carbolic acid the bowel discharges of all Diarrhœa patients, before placing them in the closet pail. All articles or material soiled with such discharges should be at once soaked and cleansed with the same solution.

After it has been ascertained that a patient is suffering from Asiatic Cholera it is essential that the strictest isolation should be maintained at home or in hospital, and that all discharges from the patient's body should be disinfected and placed in a separate receptacle, which will be provided and scavenged by the Corporation; and, further, that all articles soiled with such discharges should be promptly disinfected, or destroyed by fire. Persons attending upon Cholera patients should not touch with their hands, their own or other persons' faces, or any food or food utensil intended for their own, or other unaffected person's use. Any case suspected to be one of **Cholera** should be at once notified to me at the **Health Department in the Guildhall**.

PHILIP BOOBYER,

Guildhall, Nottingham.

Medical Officer of Health.

City of Nottingham. Prevention of Tuberculous Consumption.

This disease is infectious, and liable to spread among persons living in contact with those suffering from it. It is, however, in many cases entirely curable under appropriate treatment.

Where the lungs are principally affected, the spit of the patients contains most of the poison. This should as far as possible be received into a vessel containing a strong solution of Carbolic Acid (1 of Carbolic to 20 of Water), and all washing materials and utensils soiled by the patients should be soaked in the same solution before being washed.

The spit and other infectious matters from consumptive patients, whether disinfected or not, should always be destroyed (if possible by fire) before they become dry. They are most dangerous when dried, especially when taking the form of dust.

Consumptive patients should always sleep alone.

The rooms of consumptive patients should be freely ventilated both by day and night, and should be disinfected and cleaned (with damp cloths that have been soaked in disinfecting liquid) at short intervals.

Consumptive patients should spend as much time as possible in the open air. In case of the death or removal of any consumptive patient, the Health Department will undertake the disinfection of the infected house and materials.

A considerable proportion of milch cows suffer from tuberculous disease, and the milk of such cows, especially when the udders are affected, is liable to be highly charged with the tuberculous poison. It has been shown that animals taking tuberculous milk in the raw state are exceedingly liable to contract the disease; all ordinary cow's milk, therefore, should be sterilized or boiled before use.

PHILIP BOOBBYER,

Guildhall, Nottingham.

Medical Officer of Health.

Nottingham Corporation. Bagthorpe Hospital. Scarlet Fever.

TO PARENTS, GUARDIANS, AND OTHERS.

Although every care is exercised to prevent the carriage of infection by persons discharged from Bagthorpe Hospital, it is impossible in some instances to insure against such an accident, for no one can say with certainty how long the scarlet fever poison may lurk in the system. Parents and others are warned against allowing recently discharged patients to come into unnecessarily intimate contact with others. No person discharged from a Fever Hospital should be allowed to sleep in the same bed as another until at least a fortnight after discharge. A short holiday in the country, spent as far as possible apart from others and in the open air, is always desirable for persons convalescing from scarlet fever. But all persons recovering from scarlet fever should be warmly clothed, and otherwise protected against cold. Any recently discharged person who complains of sore throat, nose, or ears, or who has a breaking out on the skin, should be at once isolated, and placed under the care of a medical man. In any case the Corporation cannot accept responsibility or liability for the outbreak of infection occurring among the companions of persons recently discharged from hospital.

PHILIP BOOBBYER, M.B., *Medical Superintendent.*

**Official Notice under the Shop Hours Acts, 1892 to 1895,
to amend the Law relating to the Employment of
Young Persons in Shops.**

NOTICE IS HEREBY GIVEN that, under the above Acts, a young person cannot be employed in or about a shop for a longer period than seventy-four hours, including meal times, in any one week.

A young person cannot, to the knowledge of his employer, be employed in a shop who has been previously on the same day employed in any factory or workshop, as defined by the Factory and Workshop Act, 1878, for the number of hours permitted by the said Acts, or for a longer period than will, together with the time during which he has been so previously employed, complete such number of hours.

In every shop in which a young person is employed a notice must be kept exhibited by the employer in a conspicuous place, referring to the provisions of these Acts, and stating the number of hours in the week during which young persons may lawfully be employed therein. If any employer fails to keep exhibited this notice in the manner required, he is liable to a fine not exceeding forty shillings.

Where any young person is employed in or about a shop contrary to the provisions of these Acts, the employer will be liable to a fine not exceeding one pound for each person so employed.

The council of any county or borough, and in the city of London the common council, may appoint such inspectors as they may think necessary for the execution of these Acts within the areas of their respective jurisdictions, and sections 68 and 70 of the Factory and Workshop Act, 1878, shall apply in the case of any such inspector as if he were appointed under that Act, and as if the expression "Workshop," as used in those sections, included any shop within the meaning of these Acts.

In these Acts, unless the context otherwise requires, "Shop" means retail and wholesale shops, markets, stalls, and warehouses, in which assistants are employed for hire, and includes licensed public-houses and Refreshment houses of any kind.

"Young person" means a person under the age of eighteen years.

Other words and expressions have the same meanings respectively as in the Factory and Workshop Act, 1878.

Nothing in these Acts applies to shops where the only persons employed are members of the same family dwelling in the building of which the shop forms part, or to which the shop is attached, or to members of the employer's family so dwelling, or to any person wholly employed as a domestic servant.

And Notice is hereby given that no young person can be employed in or about these premises for a longer period than seventy-four hours, including meal times, in any one week.

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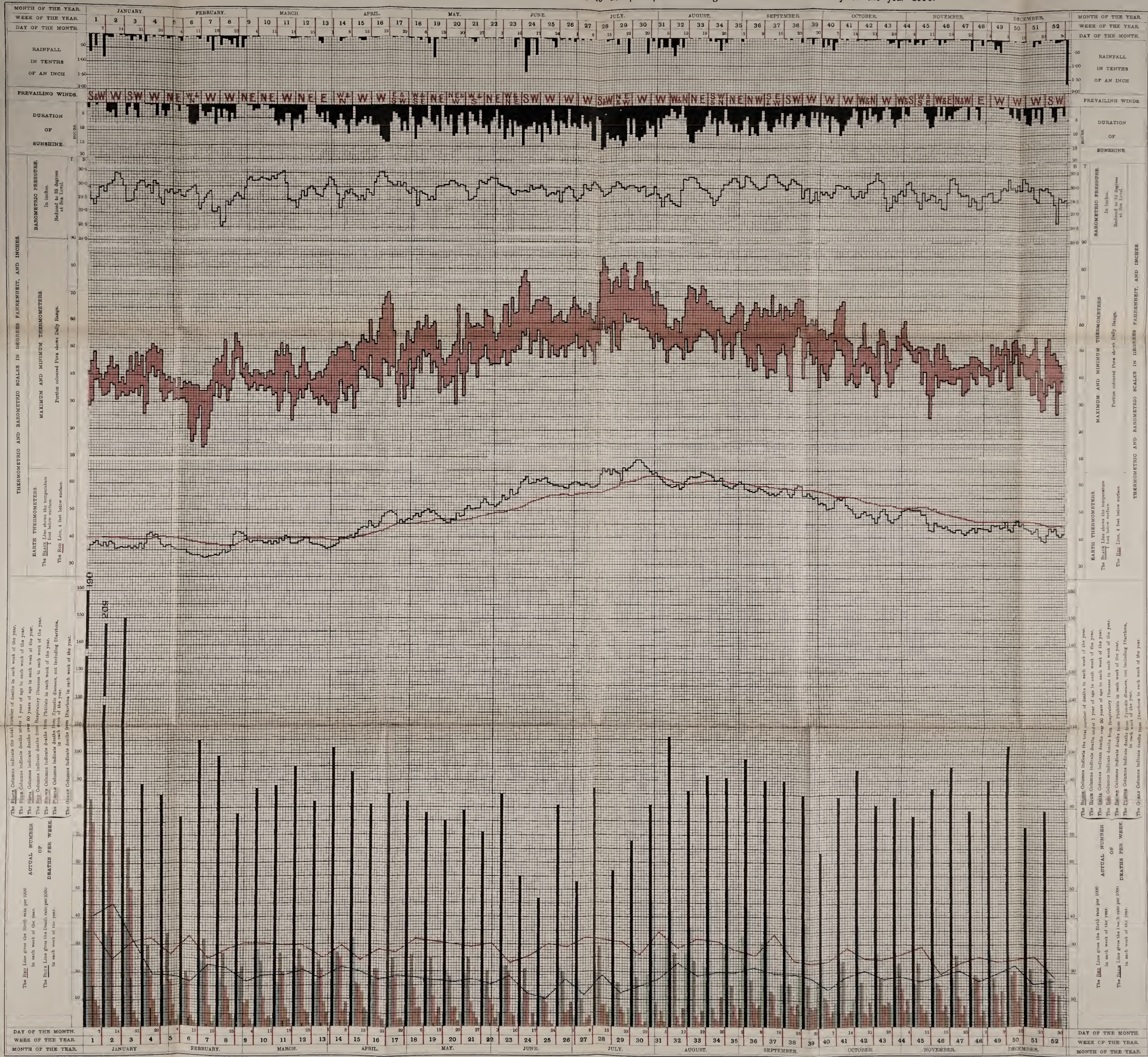
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CITY OF NOTTINGHAM.

Chart illustrating the relations of the number of deaths from various causes to the principal Meteorological conditions on each day of the year 1900.



NOTE.—The vertical Black lines in the 1st and 2nd weeks do not show by comparison the total number of Deaths. These are indicated by the Black figures at the top of the column.

NOTE.—The actual number of Deaths from Epidemic Influenza is indicated by a vertical Black line in the column, representing Deaths from Respiratory Diseases.

Estimated Population of the City, middle of 1900, 242,676.
" " " " 1901, 246,013.
Area of the City...10,935 acres.

Total Births during the year, 6,708.
Birth Rate per 1000 of population per annum, 27.3.

Total Deaths during the year, 4,622.
Death Rate per 1000 of population per annum, 19.1.

ARTHUR BROWN, M. Inst. C.E.,
City Engineer.
PHILIP BOOBYER, M.B.,
Medical Officer of Health.

